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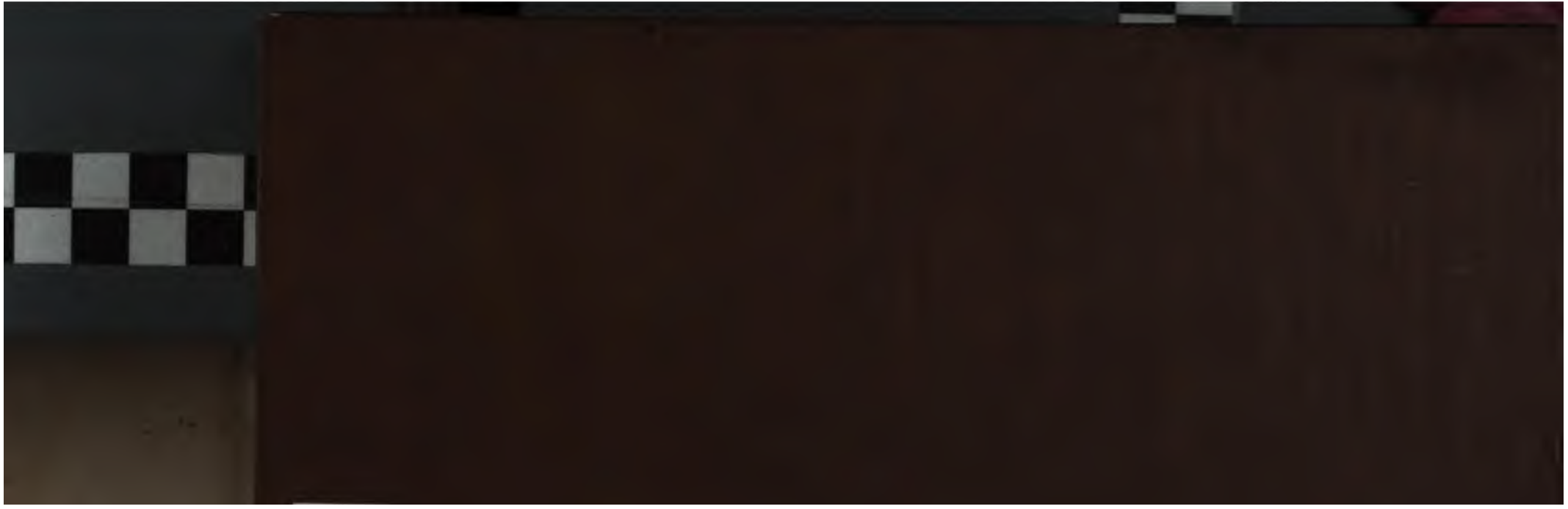

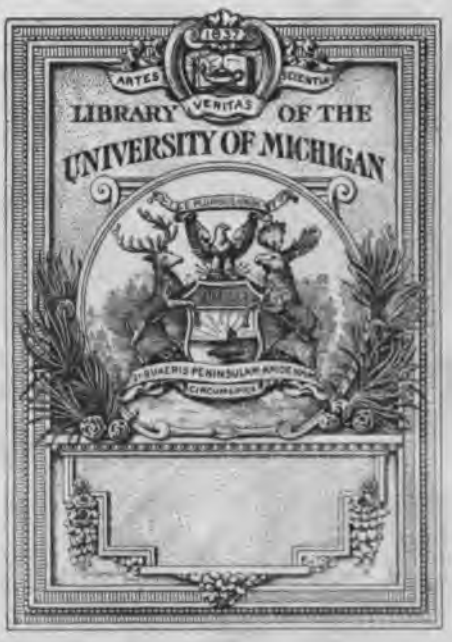
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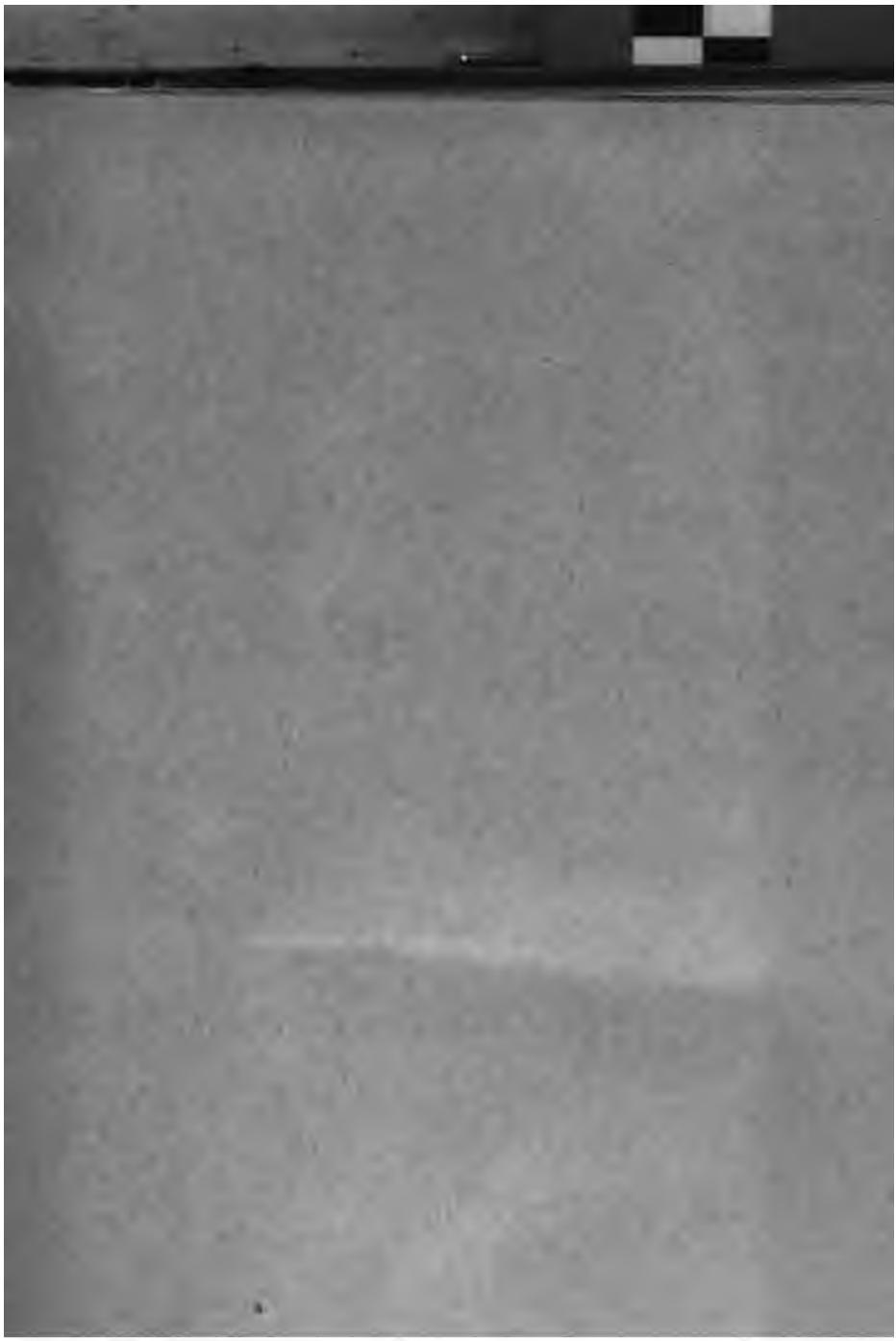

THE

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[BEING VOL. X. OF ANALYTICAL SERIES.]

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AND SUPERINTENDED BY

JAMES JOHNSON, M. D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON, AND PHYSICIAN EXTRAORDINARY TO HIS ROYAL HIGHNESS THE DUKE OF CLARENCE.

Nec tibi quid liceat sed quid fecisse decebit
Occurrat mentemque domat respectus honesti.—CLAUD.

NEW YORK:

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THE

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1827.

EDITED BY

JAMES JOHNSON, M. D.

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[NEW SERIES.]

I.

A Treatise on Diet: with a view to establish, on practical Grounds, a system of Rules for the Prevention and Cure of the Diseases incident to a Disordered State of the Digestive Functions. By J. A. PARIS, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. One vol. 8vo. pp. 307, closely printed. London, Underwood and Co. 1826.

"Some physiologists will have it that the stomach is a mill;—others, that it is a fermenting vat;—others, again, that it is a stew-pan;—but in my view of the matter, it is neither a mill, a fermenting vat, nor a stew-pan—but a stomach, Gentlemen, a stomach."—*Manuscript Note from Hunter's Lectures.*

THE labours of Dr. Paris are well known, and justly appreciated. During the last thirteen years he has published three important works. The first, or Pharmacologia, was novel in its kind and happy in its execution, and the number of editions which it has reached renders praise useless and censure pointless. The second, or on Medical Jurisprudence, has not received the patronage that it deserved, and this may be attributed to its having been a joint production, and to certain obvious partialities and imperfections. It is, in truth, the least perfect, and most objectionable, of all this author's performances; being too little to comprise the whole of the materials for a complete work, and too large for common and practical

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In the classification of the different species of potations, we may, in like manner, be governed by their distinguishing chemical composition. They may be arranged under four divisions, viz.

CL. I.—*Water.* Spring, river, well-water, &c.

CL. II.—*The Juices and Infusions of Vegetables and Animals.* Whey, tea, coffee, &c.

CL. III.—*Fermented Liquors.* Wine, Beer, &c.

CL. IV.—*The Alcoholic Liquors, or Spirits.* Alcohol, brandy, rum, &c.

The terms digestible and nutritive must not be considered as synonymous. A substance may be highly nutritive, and yet digestible with difficulty; for it may require all the powers of the digestive organs to convert it into chyle; but still it may afford a highly restorative principle. So it is with some of the fatty and oily aliments; and it has been calculated that an ounce of fat meat is equal in nutriment to four of lean. Again, there are substances, apparently easily digested, which yield comparatively little support to the frame.

A healthy stomach readily and effectually disposes of solid food of a certain specific degree of density, and this may be termed its *digestive texture.* If the food exceed this, it will require a longer period, and more active powers, to complete its chymification. The same will occur when the food approaches too nearly to a gelatinous condition. It is, perhaps, not possible to appreciate the exact degree of firmness, which will confer the highest order of digestibility upon food. The powers of the stomach may likewise vary in different individuals.* But experience teaches that no meat is so digestible as tender mutton, and it is, in this country, more used than any other kind of animal food. Wedder mutton, or the flesh of the castrated animal, is in perfection at five years, and is indisputably the sweetest and most digestible. Ewe mutton is best at two years' old. Beef is not so easy of digestion, yet, though its texture is firmer, it is equally nutritive. Much, however, will depend upon the time which has elapsed since the

* Much is also to be attributed to what may be termed the *education* of the stomach. The children of peasants feed on fat bacon, and use hog's lard for butter, with ease and pleasure: while these coarse aliments would sicken, and even vomit, those of a higher rank in life. Again, the offspring of the natives of the Polar regions suck pieces of blubber with delight, and their parents eat tallow candles, and drink oil, with rapture. Now all this, we conceive, is owing to the *customs* of barbarous life, as the reverse is to those of civilised society, and not to any natural difference in the powers of the stomach, which are probably, with certain necessary exceptions, the same in the whole of the human race.—*Rev.*

death of the animal, and still more upon the method of cookery. It is easy to understand why a certain texture and coherence of the aliment should confer upon it either digestibility, or the contrary. The conversion of it into chyme is effected by the solvent power of the gastric juice, assisted by the *churning* which it undergoes by the motions of the stomach; and, if the substance does not possess a suitable degree of firmness, it will resist such motions. Thus it is with soups and other liquid aliments, where Nature removes the watery part prior to the progress of digestion. Hence oils are digested with so much difficulty; and it is probable that jellies, and other glutinous matters, although containing the elements of nourishment in the highest state of concentration, are not digested without considerable labour; *first*, from their evading the grappling powers of the stomach, and, *secondly*, from their tenacity opposing the absorption of their fluid parts. For these reasons, it is maintained that the addition of isinglass, and other glutinous substances, to animal broths, with a view to render them more nutritive to invalids, is a pernicious practice. The texture of animal food is greatly influenced by the age, sex, habits, condition, diet, and manner of death of the animal. In proportion, generally, to the age, the flesh is coarser and more firm in texture, as almost every individual must have noticed in the eating of birds. If the flesh of mutton and lamb, beef and veal, be compared, they will be found of a different texture; the two young meats are of a more stringy, indivisible nature than the others, which makes them harder of digestion. Young animals differ, also, from old ones in the distribution of the fat, which, in the latter, is chiefly collected in masses or layers, external to the muscles; while, in the former, it is more interspersed among the muscular fibres, imparting to the flesh a marbled appearance, which is always desirable. The texture of food will likewise vary according to the wild or domesticated state of the animal, since the former is more dense, although very nutritious. Moreover, the sex modifies the quality, that of the female being invariably more delicate and finer grained than that of the entire male, whose fibres are denser. The flesh of hunted animals is peculiarly tender, and the same arises from any lingering death. The administration of vinegar prior to the killing of them has a similar effect. Incipient putrefaction strikingly ameliorates the rigidity of the animal fibre. Yet the circumstances enumerated as influencing the texture of food, and its degree of digestibility, are unimportant, when compared with the modifying powers of cookery. By this process, alimentary substances undergo a two-fold change;—their principles are *chemically* modified, and their textures *mechanically*

changed. Much, however, will depend upon the manner in which heat has been employed, and this will be generally explicable, by recollecting the kind of fuel most accessible to different countries.

1. *Boiling.* Here, the principles not properly soluble are rendered softer, more pulpy, and, consequently, easier of digestion. But the meat is deprived of some of its nutritive properties by the removal of a portion of its soluble constituents; the albumen and gelatin are also acted upon; the former being solidified, and the latter, converted into a gelatinous substance. If, therefore, meat be boiled too long or too fast, there will be, where the albumen predominates, as in beef, a hard and indigestible mass, like an overboiled egg; or, where the gelatin exceeds, as in young meats, such as veal, a gelatinous substance alike injurious to the digestive organs. Hence young and viscid food, as veal, chickens, &c. is more wholesome roasted than boiled, and easier digested. Dr. Prout has justly observed, that the boiling temperature is too high for a great many of the processes of cooking, and that a lower temperature and a longer time, or a *species of infusion*, are better adapted for most of them. Thus it is that "*beef tea*" and "*mutton tea*"* are much more calculated for invalids than the broths of these meats. The loss occasioned by boiling partly depends upon the melting of the fat, but chiefly from the solution of the gelatine and osmazone. Mutton generally loses about one fifth, and beef one fourth of its original weight. Boiling is particularly applicable to vegetables, rendering them more soluble in the

* Nothing can more strongly evince how much the English language demands strict revision and consequent improvement than the introduction of these barbarous phrases into the present work. Tea, in common conversation, implies an infusion of that Chinese plant in hot water:—how, then, can the infusion of beef, mutton, and sage, in a similar menstruum, be denominated tea, without a ludicrous absurdity? What should we think of a man who spoke of mutton-partridge, simply because his mutton was cooked as partridges are?—He would be thought mad, something like my Lord Peter, in the Tale of a Tub, who swore that a loaf of bread was both mutton and wine! Yet is this a case exactly analogous. If the ridiculous terms, here reprobated, sprang from the poverty of the language some excuse might be admitted, but it is not so; for beef, mutton, or sage-infusion would be perfectly correct, and unobjectionably short. It is now 115 years since Swift published a letter to Harley, Earl of Oxford, then Lord Treasurer, concerning the imperfect state of our language, and complaining that, in many instances, it offended against precision, sense, and grammar. What would the Dean have said, had he been told that, in the year 1826, a doctor of the University of Cambridge, and certainly one who has done her no discredit, would use, in a scientific work, such phrases as *beef, mutton, and sage-tea?*—*Rev.*

stomach, and depriving them of a considerable quantity of *air*, which is so injurious to weak stomachs. But, even in this case, the operation may be carried to a hurtful extent; for instance, potatoes are frequently boiled to a dry and insipid powder instead of being preserved in a soft, gelatinous state, which retains their shape. Again, the cabbage tribe, and carrots, are commonly not boiled long enough, and in this condition they are highly indigestible. The quality of the water employed must also be attended to; for mutton, boiled in hard water is more tender and juicy than when soft is used; while vegetables are made harder, and less digestible.

2. *Roasting*. By this process the fibrine is corrugated, the albumen coagulated, the fat liquified, and the water evaporated. The surface first becomes brown, then scorched; and the tendinous parts are rendered softer and gluey. The meat should not be *over-done* nor *under-dressed*; for though it may contain more nutriment, it will be less digestible from the density of its texture. Animal matter loses more by roasting than boiling. It has been stated, that by this latter process mutton loses one fifth, and beef one fourth; but by the former, these meats lose about one third of their weight. In roasting, the loss arises from the melting of the fat, and the evaporation of the water; while the nutritious matter remains condensed in the cooked, solid; whereas, in boiling, the gelatine, is partly abstracted. Roasted are, therefore, more nutritious than boiled meats; because it has been computed that, from the dissipation of the nutritive juices by boiling, one pound of *roasted* contains as much nourishment as two of *boiled* meat.

3. *Frying*. This is, perhaps, the most objectionable of all the culinary operations, since the heat is applied through the medium of boiling oil, or fat, which is rendered empyreumatic, and consequently extremely liable to disagree with the stomach.

4. *Broiling*. Here the sudden browning or hardening of the surface prevents the evaporation of the juices of the meat, and imparts to it a peculiar tenderness. It is the form selected by those that strive to invigorate themselves by *training*.

5. *Baking*. The peculiarity of this process depends upon the substance being heated in a confined space, which does not permit the escape of the fumes arising from it. The meat is, therefore, from the retention of its juices, made more sapid and tender; but baked meats are not so easily digested, on account of the greater retention of their oils, which are, moreover, in an empyreumatic state. Such dishes accordingly require the

stimulus of various condiments to increase the digestive powers of the stomach.

Of Condiments. These are substances which, in themselves, are incapable of nourishing, but which, in concert with food, promote its digestion, or correct some of its deleterious qualities. The existence and necessity of such agents are far more universal and important than has been generally supposed.* The bitter principle which exists in grasses and other plants appears to be equally essential to the digestion of herbivorous animals. It acts as a natural stimulant; for a variety of experiments has shown that it passes through the body without suffering either diminution, or mutation. No cattle will thrive upon grasses which are destitute of a portion of this vegetable principle; this fact has been most satisfactorily proved by Mr. Sinclair, in that magnificent work, the "*Hortus Gramineus Woburnensis.*" The value of slight bitters, and of condiments has been felt and acknowledged in all ages. From the different nature of condiment, it has been usually divided into three classes; viz. the *saline*, the *spicy* or *aromatic*, and the *oily*.

1. *Salt* appears to be a necessary and universal stimulus to animated beings; and its effects upon the vegetable and animal kingdoms have furnished the most interesting inquiries to the physiologist, chemist, physician, and agriculturist. It appears to be a natural stimulant to the digestive organs of all warm-blooded animals, and they are instinctively led to immense distances in the pursuit of it. To point out the advantages of salt as an article in diet, or to dwell upon the miseries that have sprung from the want of it, would be, indeed, a superfluous labour, since they are too notorious to be either questioned, or denied.

2. *Vinegar.* This acid, in small quantities, is a grateful and wholesome stimulant. It will often check the chemical fermentation of certain substances within the stomach, and prevent vegetable matter in its raw state from inducing flatulence, yet the use of it demands caution, and it is obviously noxious in some morbid states of the system. Fatty and gelatinous substances frequently appear to be rendered more digestible in the stomach by the addition of vinegar, although it is difficult to offer either a chemical or physiological explanation of the fact. The native vegitable acids may also be occasionally substituted. The addition of lemon juice to rich and glutinous soups makes

* See the Author's Pharmacologia, Ed. VI. Vol. I. p. 145.

them less liable to disagree with the stomach; and the custom of eating apple-sauce with pork, or goose, is attributable for its origin to the same cause.

3. *Aromatic Condiments* comprise the foreign spices, as pepper, cayenne pepper, cinnamon, nutmeg, cloves, ginger; and the indigenous herbs and roots, such as parsley, thyme, sage, garlic, leek, onion, horse-radish, mustard, &c. The former were not intended by nature for the natives of temperate climes, since they are heating and highly stimulating. The dyspeptic invalid should be cautious in their use, because permanent mischief may result from temporary benefit. But mischievous as the abuse of aromatic condiments may be, it is insignificant in comparison with the practice of swallowing a quantity of brandy to obviate the upbraidings of a disordered stomach, or an increased libation of wine to counteract the distress which supervenes on a too copious meal:—as if drunkenness were an antidote for gluttony!

4. *Oil.* This, with butter, constitutes what is called the oleaginous condiments. Melted butter, is perhaps, the most injurious of all the inventions of cookery. Oil, when used in extremely small quantities, as a seasoning to sallads, seems to prevent their running into fermentation, and, consequently, obviates flatulency.

Of Drinks. Liquid matter is as essentially necessary to the human frame as solid aliment; and the necessity of this supply, as well as its quantity, is indicated by a certain feeling denominated *thirst*. How much of diluents each person may require will depend upon individual peculiarity, climate, nature of the solid aliment, and likewise the customs of artificial life, which are too often at variance with common sense. Although fluids of the usual temperature are grateful and congenial to a healthy stomach, yet dyspeptic patients frequently need them to be raised to the temperature of the body; for the stomach not having sufficient vital energy to establish re-action, falls into a state of collapse. But fluids, heated much above the temperature of the body, are equally injurious. Iced ones should not be taken, under any circumstances, by those whose stomachs are delicate, and especially after a meal, the digestion of which is thus retarded, or wholly prevented. Different aliments will require different quantities of liquid to assist their chymification. Animal food demands more drink than vegetable; roasted than boiled meat; and baked still more than roasted. Which is the most suitable period for taking liquids? By drinking *before* the meal, we place the stomach in a very unfit condition to perform its duties:—by drinking *during* a

meal, we shall assist digestion, if the solid matter be of a nature that requires it; and we shall impede it, if the quantity taken render the mass too liquid. The best general rule, regardless of all preconceived theory, is that which is created by the sensations of the individual. Experience teaches, as Dr. W. Philip has stated, that "eating too fast causes thirst; for the food being swallowed without a due admixture of saliva, the mass formed in the stomach is too dry" As hunger and thirst are, to a certain extent, incompatible sensations, it is probable that Nature intended the appetite for food to be first satisfied; and if the food possess that degree of succulence which characterizes digestible aliments, there will be no necessity for liquids. But, at all events, the quantity should be small. It is during the intervals of solid meals that the necessary drink ought to be taken; and both theory and experience demonstrate the advantage which attends a liquid repast about four or five hours after the solid repast. About this period the chyle has entered its proper vessels, and is flowing into the blood to undergo its final changes Then it is that the stomach, having disposed of its charge, receives the wholesome draught with the greatest advantage; then it is that the blood, impregnated with new materials, requires the assistance of a diluent to complete their sanguification, and to carry off the superfluous matter; and it is then that the kidneys and the skin will need the aid of additional water to assist the performance of their functions. The common beverage of tea, or something analogous, doubtless originally suggested by an instinctive desire for liquids at this period, is thus sanctioned by theory, and its benefits established by experience.*

"*Water* is unquestionably the natural beverage of man; but any objection against the use of other beverages, founded on their artificial origin, I should at once repel by the same argument which has been adduced in defence of cookery. We are to consider man as he is, not as he might have been, had he never forsaken the rude path of nature. I am willing to confess, that the 'more simply life is supported, and the less stimulus we use, the better; and that he

* We believe that much of the *thirst* which is made the excuse for drink, both at and after dinner, arises either from a *bad habit*, established by long usage, or from eating too much in quantity, or food of an improper quality. We know several instances of dyspeptics who never could dine without drink both at and after eating; but who, on being put on a proper plan of diet, both as to kind and amount, required no drink at all, or not more than a cup of coffee when the repast was finished. We repeat it then, that thirst, or the necessity for more than a very little drink with our principal meal, is, in general, a symptom that there is "something rotten in the constitution of Denmark."—*Editors.*

is happy who considers water the best drink, and salt the best sauce:' But how rarely does a physician find a patient who has regulated his life by such a maxim! He is generally called upon to reform stomachs, already vitiated by bad habits, and which cannot, without much discipline, be reconciled to simple and healthy aliment. Under such circumstances, nothing can be more injudicious than abruptly to withdraw the accustomed stimuli, unless it can be shown that they are absolutely injurious; a question which it will be my duty to investigate hereafter.

"The qualities of water differ essentially, according to the source from which it has been obtained; and those accustomed to this beverage are sensible to differences which wholly escape the observation of less experienced judges. How far the existence of foreign matter injures its salubrity, has been a subject of much controversy: the truth, perhaps, lies between the extremes; those who insist upon the necessity of distillation for its purification, and those who consider every description of water as alike salubrious, are, in my opinion, equally remote from truth. That the presence of minute quantities of earthy matter can become a source of disease, appears absurd; while it would be highly dangerous to deny the morbid tendency of water that holds putrescent animal or vegetable matter in solution, or which abounds in mineral impregnation.

"The usual varieties of common water were classed and defined by Celsus, and modern chemists have not found any reason to reject the arrangement—'*Aqua levissima pluvialis est; dein fontana, tum ex flumine, tum ex puteo; posthæc ex nive aut glacie, gravoir his ex lacu; gravissima ex palude.*'"—120.

Now the author enters into a consideration of the different kinds of water, but this we shall overlook for the sake of more interesting matter.

The juices and infusions of vegetable and animal substances constitute the second division of drinks.

1. *Toast Water.* By impregnating water with the soluble parts of toasted bread, it will frequently agree better with stomachs which are averse from the pure fluid, and it becomes slightly nutritive from retaining a certain portion of gum and starch. The water ought to be boiling, and drunk when sufficiently cool; since, by keeping, it acquires an unpleasant flavour.

2. *Barley Water.* This is an ancient and much recommended drink. Barley affords less viscid potations than other grains. The invention of *pearl barley*, prepared by the removal of the husk, and afterwards rounded and polished in a mill, has greatly improved this grain. The granules consist chiefly of fecula, with portions of mucilage, gluten, and sugar, which

water extracts by decoction; but the solution soon passes into the acetous fermentation. Lemon juice and sugar are grateful additions.

3. *Gruel.* Oats, without their cuticle, are called *groats*. In which state, or when ground into meal, they yield to water, by coction, the fecula they contain, and form a nutritious gruel, which is slightly aperient. Gruel becomes acescent after forty-eight hours, and it may be made of different degrees of consistence, according to the object in view. If as a demulcent drink, it should be thin; and Dr. Kitchener informs us it may be made by mixing well together, by degrees and in a pint basin, *one* table-spoonful of oatmeal with *three* of cold water, and then adding carefully a pint of boiling water; the whole is to be boiled for five minutes, stirring it constantly; and, finally, the liquor is to be strained through a hair-sieve. If something more substantial be demanded, the quantity of oatmeal may be doubled; or broth or milk may be substituted for water. Some mix butter with gruel, which is objectionable where acidity of the stomach either prevails, or is suspected.

4. *Sage Tea.** The virtues of sage have been extolled, and depreciated; but, in the form of infusion, it certainly does possess some power in allaying the irritability of the stomach; and it is frequently exhibited by the Chinese as a tonic for debility of this organ. Sage, as well as balm tea, will furnish a salutary beverage on many occasions.

5. *Tea.* Two kinds of tea are imported into England, *black* and *green*. Each contains astringent and narcotic principles, but in very different proportions; the latter producing by far the most powerful influence upon the nervous system. Every narcotic being stimulating, tea exhilarates and refreshes; yet some, from certain peculiarities, experience, even from a single cup, nervous sensations, unnatural vigilance, and stomachic disorder, with feelings of depression. That the use of tea is generally beneficial is placed beyond doubt; but it ought to be taken about four hours after the principal meal, when, it will assist the ulterior stages of digestion, promote the insensible perspiration, and impart to the stomach a grateful stimulus. The addition of milk certainly diminishes the astringency of tea; while sugar may gratify the palate, but cannot modify the virtues of this infusion.

6. *Coffee.* Coffee, like tea, has had its enemies; and probably, with equal injustice. It is more stimulant, and certainly exerts a different action in the nervous system, although the

* For the sake of convenience we use the author's phraseology in this instance. *Rev.*

nature of this difference is not very obvious. After a meal, coffee does not create that disturbance in its digestion which occasionally arises after the drinking of tea; for it accelerates the operations of the stomach, and will frequently enable the dyspeptic to digest substances, such as fat and oily aliments, which would otherwise be the cause of much disorder. Coffee, taken immediately after dinner, as practised by the French, doubtless counteracts the probable evil effects of their diet. This infusion, as well as tea, has certainly an antisoporific effect on many individuals; and imparts an activity to the mind which is incompatible with sleep. It is generally admitted to possess the power of obviating the effects of narcotics: and hence it is so used by the Turks. Where coffee is intended to promote digestion, it should be carefully made by infusion, because decoction dissipates its aroma. Milk may well be omitted, while sugar, or rather sugar-candy, is allowable.—There are some persons in whom coffee induces acidity in the stomach.

7. *Chocolate.* This liquid contains a large quantity of nutritive matter, and should be regarded as food rather than drink. It is prepared by reducing the cocoa-nut into paste, with sugar, milk, or eggs: it is also frequently mixed with different aromatics, the most common of which is the *vanilla*, a substance very liable to disagree with the stomach, and to produce a train of nervous symptoms. As a common beverage, chocolate is highly objectionable; it contains an oil which is difficult of assimilation; it likewise oppresses the stomach; and this effect is increased by too much heat in the preparation.

8. *Cocoa* is usually considered as a substitute for chocolate, and, containing less nutritious matter, it is not so objectionable; for the oily matter exists only in small quantities, and consequently, is not so likely to disagree with the stomach.

9. *Whey* is a delightful beverage; but its nature and operation cannot be well understood prior to the investigation of the composition of milk.

There are certain saline solutions which are frequently employed as drinks, and deserve some attention; such are *imperial* and *soda water*.

1. *Imperial.* This is a solution of cream of tartar, flavoured with lemon peel. It ought never to be used, except as a medicine; for, if taken as an ordinary drink, it is apt to retard digestion. As an article of diet, it is only admissible under circumstances of robust health, and where a large quantity of animal food has been eaten.

2. *Soda Water.* The drinking of this du

ately after dinner, is a pregnant source of dyspepsia. By inflating the stomach at such a period, we inevitably counteract those muscular contractions of its coats which are essential to chymification. The quantity of soda thus introduced scarcely deserves notice: with the exception of the *carbonic acid gas*, it may be regarded as water, more mischievous, only, in consequence of the exhilarating quality inducing the individual to swallow it at a time when he should not require the more simple fluid. Late discoveries have shown, that the *carbonic acid* exists in a liquid state in soda water; when, therefore, it is hastily drunk, it robs the stomach of a certain portion of heat as it passes from a liquid into a gaseous state; and, consequently, cools, as well as distends that organ.

Having proceeded thus far, Dr. Paris next examines into the nature and qualities of fermented liquors, and for this subject, most ably handled, we must unavoidably refer to the work itself, and we do so the more confidently, because we have, in a recent Number* of our Journal, devoted an article to ancient and modern wines.

"Malt liquors differ from wines in several essential points; they contain a much larger proportion of nutritive matter, and a less proportion of spirit; while they contain a peculiar bitter and narcotic principle derived from the hop. It would appear that the extractive matter furnished by the malt is highly nutritive; and we accordingly find, that those persons addicted to such potations, are, in general, fat.† Where, however, they are indulged in to any extent, without a corresponding degree of exercise, they induce a phlethoric state of the body, and all the diseases consequent upon such a condition." "Ale, when taken without precaution, is liable to disturb the digestive organs. The addition of the hop increases the value of the liquor, by the grateful stimulus which it imparts, and in some measure redeems it from those vices with which it might otherwise be charged. To those, therefore, whose diet is not very nutritive, ale may be considered, not only as an innocent, but as a salubrious article; and happy is that country whose labouring classes prefer such a beverage to the mischievous potations of ardent spirit. These remarks, however, cannot apply to those classes of the community who 'fare sumptuously every day.' They will not require a nutri-

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* Henderson on Ancient and Modern Wines, No. 8, 1826, April. New Series.

† This fact is so generally admitted by all those who are skilled in the art of *training*, that a quantity of ale is taken at every meal by the pugilist who is endeavouring *to screw himself up to his fullest strength*. Jackson, the celebrated trainer, affirms if any person accustomed to drink wine would but try malt liquor for a month, he would find himself so much the better for it, that he would soon take the one and abandon the other."

tive potation of such a character; and light wines have accordingly, in these days of luxury, very properly superseded its use: but I am not disposed to extend this remark to its more humble companion, '*table beer.*' I regard its dismissal from the tables of the great as a matter of regret; its slight, but invigorating, bitter is much better adapted to promote digestion than its more costly substitutes. But it should be soft and mild; for when stale and hard, it is likely to disturb the bowels, and occasion effects the very opposite to those it is intended to produce. Nor ought it to have too great a proportion of hops, but should be thoroughly fermented and purified. Sydenham always took a glass of small beer at his meals, and he considered it as a preservative against gravel.

"The great division of malt liquors is into small beer, ale, and porter." 147—8.

We are much pleased with the above observations, as well as with those which follow on ale, porter, and ardent spirits; and to the truth of them we have long been converts.

It is now that Dr. Paris attempts an estimate of the nutritive and digestible qualities of several species of aliment, as derived from the application of the physiological and chemical principles established in his preceding pages. Compelled as we are, by defined limits, to disregard his remarks on milk, which, although fluid, is, in fact, a mixture of solid and liquid aliment, and separable into three proximate ingredients, *cream*, *curd*, and *whey*, we proceed in regular analytic order.

Eggs, in point of nutriment and digestibility, may be classed next to milk; but their qualities will greatly depend upon the manner in which they are cooked. When raw, they are certainly not so easily digested as when lightly boiled, so as slightly to coagulate their albuminous principle; but if this be carried too far, they are converted into a hard mass, which requires all the powers of the stomach for its chymification. This is, however, much accelerated by the use of vinegar as a condiment. Eggs singularly disorder some stomachs, even in the smallest quantity, while in others they are harmless:—When raw, they are laxative; and when cooked, apt to engender constipation.

Fish has been generally considered as holding a middle rank between the flesh of warm-blooded animals and vegetable food. It is less nutritive than mutton or beef; but the health and vigour of the inhabitants of fishing towns, demonstrate that it is sufficiently nourishing for active life. To satisfy the appetite, a large quantity is requisite; and the appetite returns sooner than after a diet of meat. Nor does fish produce the same stimulus to the body; the pulse is not strengthened as from a

repast of flesh; and that febrile excitement is wanting which attends the digestion of the more nutritious viands. Hence, fish affords a most valuable article of diet to invalids, labouring under particular disorders; since it furnishes a chyle moderately nutritive, yet not highly stimulant. Fish does not need a laborious operation of the stomach; and is also free from the objections urged against liquid or gelatinous food. Such a diet is not calculated to restore debilitated habits, and, in such cases, is altogether inadmissible, except when the digestive powers are unable to convert stronger aliment into chyle. From its stimulant power, fish requires condiments; and, consequently, salt apppears to be an essential accompaniment.

"Fish have been arranged under three divisions; viz. *fresh-water fish, salt-water fish, and shell-fish.* But since the value of these animals, as articles of food, has an intimate relation to the colour and texture of their muscles, and to their gelatinous or oily qualities, it will be expedient to consider their several varieties with reference to such conditions. Turbot, cod, whiting, haddock, flounder, and sole, are the least heating of the more nutritive species; and the flakiness of the fish, and its opaque appearance after being cooked, may be considered as true indications of its goodness; for when the muscles remain semi-transparent and bluish, after sufficient boiling, we may reject it as inferior in value or not in season. When the fish is in high perfection, there is also a layer of white, curdy matter, resembling coagulated albumen, interposed between its flakes. The whiting is well adapted for weak stomachs, on account of the little viscidity which it possesses; it is, at the same time, tender, white, and delicate; and conveys sufficient nutriment, with but little stimulus, to the system. The haddock much resembles it, but is firmer in texture. Cod has a more dense fibre than the former, and contains also more glutinous matter; it is an excellent aliment, but, upon the whole, is not quite so digestible as whiting or haddock. It is generally preferred when large; but such fish are frequently coarse. The haddock is certainly better when it does not exceed a middling size." 159.

For much more valuable information on this interesting subject, the reader is referred to the book itself, and we venture to say he will not be disappointed.*

* With every deference and respect for the opinions, both of Dr. Paris, and the talented, as well as experienced writer of this article, the Editor of this Journal differs from the sentiments of both, in respect to fish as an article of food in dyspepsia. He appeals to the experience of dyspeptics themselves (and there are many of them in the profession) whether fish, even the plainest white fish, is not much more apt to disagree with the stomach than animal food. Some of the severest attacks of indigestion which he ever witnessed, were caused by fish. With butter, it is injurious—without butter it is insipid. It is allowed that fish requires condiments; but condiments

Birds. There is a great variety in the qualities of the food of this class of animals, with respect to nourishment, stimulus, and digestibility. The whiter meat of domesticated birds, as the wings and breasts of chickens, contains less nutriment, and is less digestible, than that which is furnished by wild birds, as the partridge, &c.; yet, the former is less heating and stimulating. These circumstances must direct the opinions of the medical practitioner; and the same observations will apply to the flesh of quadrupeds; for that which is dark-coloured, and possesses a large proportion of fibrin, as venison, &c. is easily disposed of by the stomach, and produces a large quantity of highly stimulating chyle. The whiter meats, on the contrary, are detained longer there, and generate a less stimulant chyle. The former, therefore, will be more readily digested by weak persons, while the latter will frequently run into acetous fermentation; but they may, nevertheless, be preferable on many occasions, because they impart less stimulus to the general system.

The next sixteen pages of this work are appropriated to the consideration of "*Farinaceous Aliments;*" such as wheaten bread, and adulterations of it; leaven; barm; panification; kinds of bread; barley, rye, and oaten bread; puddings, pancakes, &c.; potatoe, rice; leguminous vegetables, or pulses; and then follow observations on peas, nuts, esculent roots, and herbs. For all these we must refer to the book itself, those who are unacquainted with such matters.

Fruits. These are generally regarded as luxuries; and, from their abuse, they may be classed rather under poisons than aliments. Nothing can be more injurious than an excess of them in the form of dessert, or otherwise; but, judiciously taken, they contribute to health, and appear to be, at proper seasons, a desirably cooling and antiseptic food. Fruits may be arranged under the following heads: stone fruits, the apple species, small-seeded fruits, small berries, and farinaceous fruits. The stone fruits are the least digestible, but much depends upon the unripe state in which they are eaten; yet still they are very liable to undergo fermentation in the stomach. The hard pulp of certain plums remains also in the alimentary canal for a long time, and is frequently ejected without material change. The ripe peach is the most delicious, and one of the most digestible of the stone fruits. The apricot is equally wholesome, while the nectarine is apt to disagree with particular stomachs.

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themselves are very generally prejudicial in dyspepsia. Upon the whole, he warns the dyspeptic invalid against fish—and he appeals to their own feelings after eating it, for the justness of the objection.

Cherries are far less digestible: their pulpy texture and skins are not easily disposed of by the stomach; and, as the sweetest contain a considerable excess of acid, they may be objectionable in some, and desirable in other cases. The apple species is not so dilute and watery, and is consequently less likely to pass into noxious fermentation; but its texture is firmer, and being, from this circumstance, longer retained in the stomach, it often proves indigestible. The same observations apply in a minor degree to pears. The orange, when perfectly ripe, may be allowed to the fastidious dyspeptic; yet the white, or inner skin, should be scrupulously rejected, for it is not more digestible than leather. The small-seeded fruits are undoubtedly the most wholesome; and of those, the ripe strawberry and raspberry deserve the first rank. The grape is likewise cooling and antiseptic, but the husks and seeds should be discarded. The gooseberry is less wholesome, especially from the indigestibility of the skin, which is too frequently swallowed. The fruits to be classed under the head of small berries, are the cranberry, the bilberry, and the red whortleberry. These are seldom eaten, except when baked, and in that state their acescency seldom proves injurious. The farinaceous fruits are universally hurtful. The melon, which is the principal one, is very apt to disagree with weak stomachs, and should never be eaten after dinner, without a plentiful supply of salt and pepper. Mornings and evenings are the most proper periods for indulgence in fruit. On some occasions, it may be taken with advantage at breakfast, or three hours before dinner, and it affords a light and agreeable repast if enjoyed an hour before bed-time. But these regulations are to be influenced by circumstances which no general rule can possibly embrace. By cookery, fruit, otherwise unwholesome, may be converted into a safe and useful aliment. Apples, when baked, afford a pleasant entertainment; and from their laxative qualities are well adapted to certain cases of dyspepsia. Fruit pies, if the pastry be entirely rejected, are valuable articles of diet. Dried fruits are by no means so useful or safe as is generally imagined, the quantity of sugar which enters into their composition disposes them to fermentation.

A few words remain to be expressed upon the subject of the intermixture of various aliments; or, in other language, the too prevailing fashion of introducing at meals an almost indefinite succession of incompatible dishes. The stomach being distended with soup, the digestion of which, from the very nature of the operations which are necessary for its completion, would in itself be a sufficient labour for that organ, is next tempted with fish, rendered indigestible by its sauces; then

with flesh and fowl;—finally "the vegetable world is ransacked from the *cryptogamia* upwards;" and to this miscellaneous aggregate are added the pernicious pasticcios of the pastry-cook, and the complex combinations of the confectioner. It is not to one or two good dishes, even abundantly indulged in, but to the overloading of the stomach, that such strong objections are to be urged. Nine persons in ten swallow as much soup and fish as would amply suffice for a meal, and as far as these are concerned, would rise not only satisfied but saturated; yet a new stimulus appears in the form of stewed beef, or côtelettes á la suprême: then comes a Bayonne or Westphalia ham, or a pickled tongue, or some analogous salted, but proportionately indigestible dish, and of each enough is eaten for a single meal. Alas! this is not all; game follows; and to this again succeed the sweets, and a quantity of cheese; and the whole is crowned with a variety of flatulent fruits and indigestible knick-knacks, included under the name of dessert, and accompanied with a mountain of sponge cake. Thus the stomach receives not one full meal, but a succession of meals, rapidly following each other.

"But it may be said, that this is a mere tirade against quantity; against over-distention of the stomach; that it argues nothing against variety of food, provided the sum of all the dishes does not exceed that which might be taken of any single one. Without availing myself of the argument so usually applied against plurality of food, that 'it induces us to eat too much,' I will meet the question upon fair grounds. It is evident that the different varieties of food require very different exertions of the stomach for their digestion; it may be that the gastric juice varies in composition, according to the specific nature of the stimulus which excites the vessels to secrete it; but of this we are uncertain, nor is it essential to the argument: it is sufficient to know, that one species of food is passed into the duodenum in a chymified state in half the time which is required to effect the same change in an other. Where, then, the stomach is charged with contents which do not harmonize with each other in this respect, we shall have the several parts of the mixed mass at the same time in different stages of digestion: one part will, therefore, be retained beyond the period destined for its expulsion, while an other will be hurried forward before its change has been sufficiently completed. It is then highly expedient, particularly for those with weak stomachs, to eat but one species of food, so that it may be all digested and expelled at nearly the same period of time; that when the duodenal digestion has been fully established, the operations of the stomach shall have ceased. I have, on a former occasion, insisted upon the importance of such a regulation, and it now leads one to make some remarks upon the periods best adapted for our meals, and upon the intervals which should be allowed between them." 185.

On the Periods best adapted for Meals, and on the Intervals which should elapse between each. An invalid may safely take three frugal meals; or, on some occasions, even four, provided a certain quantity of exercise be enjoyed.

1. *Breakfast.* This is, perhaps, the most natural, and not the least important meal, since, from the long period of abstinence, the stomach ought to be in a condition to receive aliment. But this is not always the fact; the gastric juice does not appear to be secreted in any quantity during sleep, while the muscular energies of the stomach, although invigorated by repose, are not immediately called into action. It is, therefore, advisable, and the practice is confirmed by experience, to allow an interval to pass prior to breakfasting. The solidity of the breakfast should be regulated by the labour and exercise to be undergone, and the time of dining. Where the dinner hour is late, a more nutritious meal may be recommended, to supersede the necessity of *luncheon*, or what the French designate *un déjeuner à la fourchette.* Yet it must not be forgotten that dyspeptic invalids are frequently incommoded by such a repast, if it be copious. Heartburn is a common effect, especially if the heavy breakfast be accompanied with much diluting liquid. Hence a question has arisen as to the propriety of taking much fluid on such occasions. It will not be difficult to show the reasons why liquids are essentially necessary at breakfast; because overlooking obvious ones, there is a certain acrimony and rankness in all the secretions at that period; and, likewise, the breath has commonly a peculiar taint in the morning, which is not observable at subsequent times of the day. Every physician must have been consulted upon the propriety of taking meat, tea, or coffee, at breakfast. A person who has not strong powers of digestion, is frequently distressed by the common association of tea with bread and butter, or, what is more injurious, with hot buttered toast or muffin; the oily part of which is separated by the heat of the liquid, remains in the stomach, and produces, in its cardiac orifice, an irritation tantamount to heartburn. Here dry toast is preferable. New bread, or spongy rolls, should be carefully avoided. Tea, to many individuals, is a beverage which contains too little nutriment; and when so, barley water, or a thin gruel, is a very useful substitute. A constant acidity between breakfast and dinner, but at no other period, has been removed by eating toasted bread, with a slice of the lean part of cold mutton, and a large cup of warm barley-water for the purpose of dilution. Hard eggs, although they require a long time for their digestion, are not generally offensive to the stomach; and con-

sequently may be taken with propriety at breakfast whenever the hour of dinner is late.

2. *Dinner.* This is the principal meal of modern times, and at which every species of luxurious gratification is practised. Invalids should dine in the middle of the day, or at two or three o'clock. The exact period, however, must be directed by the physician with reference to the necessary habits of his patient, the nature and time of his breakfast; and, above all, to the rapidity or tardiness of his digestion. For instance, a gentleman dining at three, had scarcely any appetite, and constantly experienced a sensation of weight and uneasiness afterwards; but was cured by always taking his dinner at six o'clock, because, when he dined at the former hour, his breakfast had not been duly digested in consequence of his digestion being remarkably slow.

3. *Tea.* This subject has already been considered; and, where it is practicable, exercise should follow the repast.

4. *Supper.* When Queen Elizabeth flourished, the nobility and gentry were accustomed to dine at eleven, to sup between five and six, and to go to bed at ten. Any argument, therefore, in favour of this meal, founded upon the healthy condition of our ancestors, must be fallacious. By supper, in modern times, a late meal before bed-time is understood. But as sleep is not favourable to every stage of digestion, it is very questionable whether retiring to rest with a full stomach can, under any circumstances, be salutary. During chymification a person so situated may perhaps sleep quietly, unless indeed the morbid distention of the stomach should impede respiration, and occasion distress; but when the food has left the stomach, and chylification and sanguification have been established, the natural propensity of the body is for activity, and the invalid awakes at this period, and remains in a feverish state for some hours. Upon this general principle then, suppers are to be avoided; that is, *hearty* ones, which require for their digestion the active powers of the stomach. The same can not be urged against a slight repast, which is generally useful to dyspeptics; and it has been truly and facetiously observed, that "some invalids need not put on their night-caps, if they do not first bribe their stomachs to good behaviour." An egg lightly boiled, or a piece of dry toast, with a small quantity of white wine negus, will often secure a tranquil night. Among the intellectual part of the community, there has ever existed a strong predilection in favour of suppers; for the labour of the day has been performed; the hour is sacred to conviviality, and is one not likely to be interrupted by business. To those in health,

such indulgences may occasionally be allowed; yet the physician should be cautious in giving his sanction to their wholesomeness.*

On the Quantity of Food that ought to be taken at different Meals. We can not deprive our readers of the pleasure of perusing the following no less happy than just, observations. We have not shrunk, and we never will shrink, from the labour of analysis; but there are times when it is peculiarly proper to permit an author to appear in his own language, since not to concede this to him, is to rob him of the merit of his best passages. Our wish is to blazon forth, and not to darken intellectual light.

"Mr. Abernethy says, that 'it would be well if the public would follow the advice of Mr. Addison, given in the Spectator, of reading the writings of L. Cornaro; who, having naturally a weak constitution, which he seemed to have ruined by intemperance, so that he was expected to die at the age of thirty-five, did at that period adopt a strict regimen, allowing himself only *twelve ounces* of food daily.' When I see the habits of Cornaro so incessantly introduced as an example for imitation, and as the standard of dietetic perfection, I am really inclined to ask with Feyjoo—did God create Lewis Cornaro to be a rule for all mankind in what they were to eat and drink? Nothing can be more absurd than to establish a rule of weight and measure upon such occasions. Individuals differ from

* In regard to suppers, the wisest method is to be guided by the feelings of the patient. Some dislike suppers, and take them with reluctance, while others, toward night, become hungry, and endure an aching, and a disagreeable emptiness of the stomach, which are commonly removed by eating a little animal food, and drinking a glass of ale, or of wine and water. We wonder the author has not interdicted the use of green tea, which is exceedingly pernicious to all dyspeptics, and indeed often produces cardialgia, and gastrodynia in the healthy. With respect to drinking during dinner, the best general rule is to avoid the practice, provided it can be done without distress, but certainly not otherwise, yet great moderation ought to be observed. If malt liquor be drunk after dinner, it should be very slowly, and not exceeding twelve ounces in half an hour, since, quickly taken, it unpleasantly distends and disorders the stomach. The same observation applies to wine;—for instance, a glass every quarter of an hour, not advancing beyond three, or four glasses of wine, and of which madeira and sherry are the most salutary. But where both malt liquor, and wine are indulged in, the proper plan is to drink the former first, and when an hour and a half have expired to commence with the latter. For, it is a well known fact, that, about two hours after dinner, the dyspeptic sufferer often experiences what he expressively terms, "*a terrible sinking of the stomach*," and which doubtless arises from the weakness consequent to chymification. Now wine taken prior to this period, and as we have advised, does, to our certain knowledge, either prevent, or overcome this much dreaded sinking.—*Rev.*

each other so widely in their capacities for food, that to attempt the construction of a universal standard, is little less absurd than the practice of the philosophical tailors of Laputa, who wrought by mathematical calculation, and entertained a supreme contempt for those humble and illiterate fashioners who went to work by measuring the person of their customer: but Gulliver tells us, that the worst clothes he ever wore were constructed on abstract principles. How then, it may be asked, shall we be able to direct the proportion of food which it may be proper for an invalid to take? I shall answer this question in the words of Dr. Philip, whose opinion so exactly coincides with my own experience, that it would be difficult to discover a more appropriate manner of expressing it. 'The dyspeptic should carefully attend to the first feeling of satiety. There is a moment when the relish given by the appetite ceases: a single mouthful taken after this, oppresses a weak stomach. If he eats slowly, and carefully attends to this feeling, he will never overload the stomach.' But that such an indication may not deceive him, let him remember *to eat slowly*. This is an important condition; for when we eat too fast, we introduce a greater quantity of food into the stomach than the gastric juice can at once combine with; the consequence of which is, that hunger may continue for some time, after the stomach has received more than would be sufficient, under other circumstances, to induce satiety. The advantage of such a rule over every artificial method by weight and measure, must be obvious; for it will equally apply to every person, under whatever condition or circumstances he may be placed. If he be of sedentary habits, the feeling of satiety will be sooner induced; and if a concurrence of circumstances should have invigorated his digestive powers, he will find no difficulty in apportioning the increase of his food, so as to meet the exigencies of the occasion." 196.

Although we all take more solid food in health than may be necessary for supporting the body; yet too great an abstinence will also tend to weaken and distress both mind and body. The effects of low feeding are obvious in the diseases of the poor and ill-fed classes in many parts of England and Ireland; and these are still more striking in those districts where the food is chiefly or entirely vegetable, and, therefore, less nutritious. The obstinate fasting of maniacs often produces a disease resembling the sea scurvy. But those who, from their situation in life, constantly exceed the proper standard of diet, will preserve their health by occasionally abstaining from food, or rather, by reducing the usual quantity, and living low. This subject deserves farther consideration. A person after an attack of acute disease, when his appetite returns, is in the condition of a pugilist who is about to commence a system of *training*; but he is still more obnoxious to the evils presumable to accrue from excessive feeding. Weak, emaciated,

without any disease, with a voracious appetite, he eats frequently and largely to recover his lost strength. For a time all is sunshine; his vigour increases daily; when, suddenly and unexpectedly, his appetite fails, he becomes again unwell, and fever, or some other mischief, assails him.

Any sudden transition from established habits, with regard to the quantity and quality of food, is injudicious. Individuals ought not to leap at once from the situation which causes pain, or creates alarm, but should quietly descend by safe and gradual steps. After long fasting also, great caution must be observed in the indulgence of aliments. When a famine occurred in the city of Bochara, those, who had lived on roots and herbs, died, because they filled themselves immoderately on their return to bread and meat. The advantages, derivable from rendering food grateful to invalids, are so striking, that the most digestible aliment, if it excite aversion, is more injurious than that which, though otherwise objectionable, gratifies the palate. If feelings of disgust or aversion are produced, the stomach will never act with healthy energy on the ingesta; while, in cases of extreme dislike, they are either rejected, or discharged almost unchanged. On the contrary, the gratification which attends a favourite meal is, in itself, a specific stimulus to the digestive organs, and especially in weak habits.

Conduct to be pursued previous and subsequent to Meals. Exercise in the open air is essential to the well-being of every person; but its degree must be regulated by individual circumstances. The interval between breakfast and dinner is the period for active exertion, while the enjoyment of it, when unattended with severe fatigue, will invigorate all the functions. This too, is the period for the mind to direct its energies successfully, recollecting that *the valetudinarian or dyspeptic ought never to take his principal meal in a state of fatigue.* But the reverse of this salutary rule is practised by numbers, and by none more tenaciously than by the invalid merchant, the banker, the attorney, and the government clerk. Nay, dyspeptic patients have been restored to health by pursuing a different conduct. Remember that moderate exercise prior to dining is salutary; and that it is the abuse of it which is decried. Every one should inhale the open air anteriorly to a full meal, and undergo suitable exertion without consequent fatigue. Horse exercise is unquestionably beneficial, but it should not supersede that of walking. The occupation of *digging* is salutary; and especially to dyspeptics by agitating the abdominal organs. Constipation of the bowels is one of

the great evils arising from sedentary habits; and this may, to a certain degree, be remedied, by standing for a definite period, instead of sitting, before a desk.

"If exercise be useful during the period of sanguification, pure air is no less so; and I shall take this opportunity of entering my protest against the introduction of *gas* into the interior of our houses. *Carburetted hydrogen* is a deadly poison; and even in a state of great dilution, it is capable of exerting a very baneful effect upon the general system. I have been consulted on several occasions for pains in the head, nausea, and distressing languor, which evidently had been produced by the persons inhaling the unburnt *gas* in the boxes of our theatres."

After relating the great sufferings and apparent danger of Sir Humphrey Davy, produced by the voluntary inspiration o *carburetted hydrogen gas*, the author concludes thus:—

"After this proof of the poisonous nature of carburetted hydrogen,—after the cases of sickness and headach which have occurred, in consequence of its inhalation at the theatre, am I not borne out in my opinion, that *its introduction into our apartments is fraught with danger?*" 206.

Of the Influence of different Aliments in modifying the Appearances of the Discharges of the Body. The external characters of the feculent discharges may be said to announce the healthy or diseased state of the digestive functions, with as much certainty as the pulse does that of the sanguiferous system. But, to deduce safe conclusions from such data, the nature and extent of the changes produced in these discharges by different aliments and medicines, must be well understood. The air has also the effect of altering the colour of the fæces, and hence they should be inspected without delay. This applies with great force to the stools of infants, which, perfectly yellow when voided, speedily assume a green appearance; and probably from the spontaneous decomposition of the bile.

Certain green vegetables, particularly spinach, impart a green hue to the fæces, that may be mistaken for vitiated bile; and beet-root will likewise give a colour. Pale-coloured evacuations, as if the bile were imperfectly secreted, may arise from drinking a considerable quantity of milk. Where the food has been of a very complicated description, the faces will generally assume a crude and diversified character, owing, perhaps, to the several parts not having undergone the same degree of digestion. Where much stimulant drink has been used, and the person subjected to long fasting, or much labour, or has perspired profusely, the fæces acquire a hardened state. It is

essential to know, that certain parts, both of animal and vegetable substances, pass through the alimentary canal without any change: *e. g.* the skin and seeds of fruits, &c. Cheese is also very apt to eject itself altogether undigested; and that formed into a ball by the action of the intestines, or a portion of caseous matter actually formed there from the drinking of milk and coagulated by the gastric juices, has been mistaken for an intestinal concretion. Concretions of oat-seeds are not unusually evacuated by the inhabitants of Scotland and Lancashire, where the oat-cake is in common use among the lower classes. The spawn of lobsters, a very indigestible substance, has also occasioned similar deceptious appearances. Magnesia, when repeatedly taken, will, by the assistance of a little animal mucus, become consolidated into masses of formidable magnitude. Certain medicines likewise change the colour of the excrements; iron imparts a black, and magnesia a white appearance. These circumstances* ought to be attended to, where it is an object to ascertain the state of the biliary secretion by the colour of the stools; and it would be judicious, on such occasions, to restrict patients to a diet that has no power to alter the appearances of the alvine discharges.

The intelligent author has now brought to a conclusion his history of Alimentary Substances.—It will readily be perceived, he observes, that the terms *digestible* and *indigestible*, as applied to particular species of food, are but relative in their import, and depending upon the circumstances which he has endeavoured to investigate. The theory of digestion, and the history of Alimentary Substances, are, in his opinion, so intimately connected with the diseases to which our organs are

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* The author has very properly directed attention to the colour of the alvine discharges, which is, at times, a great source of fallacy. Doubtless the colour of them is occasionally indicative of morbid conditions, yet the discolouration is often produced by various aliments, fluids and medicines; and, if this fact be overlooked, incorrect opinions may be formed, and improper treatment recommended. Port wine and claret will make the stools of a black appearance in those unaccustomed to their use; and so will bottled London porter, unquestionably, from the intermixture of certain noxious ingredients. Again, the fine yellow colour of the evacuations, believed to arise from the exhibition of the blue pill, or calomel, can be generated by eating dried French plums, or prunes, as we have ascertained in numerous instances; while the apparent bilious tinge of a coated tongue may easily be caused by chewing a little gingerbread. Such are the trifles, recorded by Dr. Paris and ourselves, which sometimes unknown, and sometimes forgotten, mix themselves with the practice of physic, and create theories that are begotten on error, and founded upon misconception, and slope the way to the cures of diseases which never had any existence. This is, indeed, a fertile subject, and may, hereafter, be resumed.—*Rev.*

exposed, that, without a thorough knowledge of the former, we cannot expect to understand the phenomena of the latter, nor to establish a rational and successful system of treatment for the prevention and cure of Dyspepsia. He now proceeds to the third division of his work, which will embrace the history of indigestion in all its forms and stages, and in which he hopes to turn the principles, already developed, to a practical advantage.

Part III.—*Of Indigestion.*

Dyspepsia and *indigestion* are here considered as synonymous terms; and, notwithstanding the distinction of Dr. Philip, with obvious propriety, since the word *indigestion* is evidently a literal English translation of the Greek compound *dyspepsia.*

"I define indigestion to be *a primary disease, in which one or more of the several processes by which food is converted into blood, are imperfectly or improperly performed, in consequence either of functional aberrations, or organic lesion.** This definition may, per-

* Dr. Paris has created no little confusion here by attempting too much. If the definition had terminated with "*functional aberration*" all would have been well; but, by including "*organic lesion*," it involves a contradiction, and comprises a singular error in pathological reasoning. What! is indigestion defined to be always a primary disease, and yet, sometimes, a consequence of organic lesion? To say indigestion is a consequence of functional aberration is intelligible enough, because such aberration constitutes the disease itself. In the first instance, indigestion is universally understood to be a functional, and consequently a primary disorder. True it does occasionally excite organic lesion of some part or other, although not so frequently as is usually represented, but in no manner will this admission assist the definition in discussion. For if indigestion should occasion organic mischief, that mischief will be the consequence, and not the cause of that malady; or, if the indigestion be generated by organic lesion, as the author affirms it sometimes is, why then it is not a primary, but a secondary disease. In fact, indigestion must be, in its early stages, invariably a functional disturbance; for, if it were the reverse, it could not, without absurdity, be called indigestion, since such an indigestion would be a mere symptom of an organic affection. Diseases are designated according to their actual nature, and not to their obvious indications. If a man suffer from simple irritability of the stomach, such is its right name, here it is certainly primary; while, if the irritability be an indisputable symptom of a diseased pylorus, such would be the distinctive appellation. So is it with indigestion a primary and functional disorder, commonly ending favourably; yet, at times giving rise to structural disease, which is, and ever must be, under the circumstances dwelt upon, a consequence of indigestion, and not indigestion a consequence of it, agreeably to this notable definition. But it may be alleged, the indigestion is apparent, while the organic lesion, however existing, may be thoroughly masked, and consequently unsuspected. Granted! yet this allegation will avail the author nothing. What produced

haps, be opposed on the ground of its too comprehensive signification; but I may observe, that however extensive may be the series of symptoms which are thus included under one general head, they will afford, when viewed collectively, sufficient evidence of their relation with the digestive process; although, on a loose and hasty observation, they may not present any general principle of dependency and connexion; if they appear disunited, let the practitioner suspect that he has never viewed them with sufficient reference to that physiological harmony which subsists between the organs in which they arise. Acidity of stomach and urinary depositions are equally indicative of deranged digestion; but the mind that is not acquainted with the relations of the stomach and kidneys, or with the connexion which subsists between the formation of perfect chyle and the discharge of natural urine, will not be disposed to arrange symptoms, so apparently remote in their reliance, under one common head." 214.

"From the universal sympathy which the stomach entertains for every part of the living body, its functions may become impeded or perverted from the existence of diseases which originate in organs with which it has no immediate connexion; an affection of the head, or even a disease in the urethra, may create sickness, loss of appetite, or a suspension in the digestive process; but such phenomena are not to be confounded with the primary symptoms of dyspepsia; they are affections of sympathy or induction, and will require very different treatment."—"I am strongly inclined to think that physicians of the present day are too apt to accuse the alimentary functions of offences which should be charged on other organs." 215.

1. *Imperfect Chymification.* The symptoms which arise from this cause are generally those which first indicate the approach of indigestion, and they frequently recur at intervals, for a considerable period, without occasioning any constitutional disturbance, or even a degree of local distress sufficient to awake alarm. In some cases, indeed, they are only produced by particular aliments, or under peculiar circumstances; but in others, they follow the ingestion of every species of food, although their violence is usually influenced by the quality and quantity of the meal. In this latter case, a morbid state of the stomach exists, which ought to be remedied without delay. We must ascertain whether a peculiar idiosyncrasy of the

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the indigestion? What occasioned the organic lesion? Which had the priority? The indigestion? Then Dr. Paris is wrong, for it generated the organic lesion, whereas he maintains the direct contrary! Was it the organic lesion? Here Dr. Paris is equally wrong, since with what propriety can he define indigestion, and without any qualification, whatsoever, to be a primary disease, when the exciting cause of it is organic lesion?—*Rev.*

stomach prevails in instances where indigestion is caused only by some particular aliment; or whether there be a debilitated condition of that organ, that incapacitates it from digesting any food demanding considerable powers for its chymification. The mucous membranes of certain stomachs appear to be irritated by particular food, as the skin is known to be by particular coverings: and this is not disease but idiosyncrasy. If, on the contrary, an individual can digest beef or mutton well, but suffers from heartburn, and other unpleasant feelings in the stomach when he eats pork, veal, or fried meat, the right conclusion is that his general powers of digestion are feeble, and easily depressed; and that his stomach is unable to convert into healthy chyme those aliments which require a higher degree of exertion. An healthy stomach, like every other healthy organ, possesses the power of preventing the chemical changes to which its contents would, under different circumstances, be exposed. Hence the food does not ferment there; but if the vital powers of that organ fail, the chemical affinities gain the ascendency, and, after a certain interval, various symptoms arise, which clearly denote the change that has occurred. This is the philosophy of an ordinary attack of indigestion. An uneasiness, and sensation of weight and distension are experienced in the region of the stomach, acidity prevails, eructations of disengaged air distress the patient, and nausea is felt from an effort of the stomach to eject its indigestible contents. There are chilliness, and a general lassitude, which originate from the sympathy that is produced on the nervous and sanguiferous systems. These effects particularly occur toward the end of chymification; and in good time, pass off, while the remaining parts of the digestive process are apparently conducted with regularity. But this constitutes only a casual fit of dyspepsia, which may happen to healthy persons, and is remediable by clearing the bowels of any superfluous and crude matter, and avoiding the exciting causes in future. Yet, if an individual retire to rest with an overloaded stomach, he may pass into a comatose state, accompanied with apoplectic stertor, and from which it is not unfrequently difficult to rouse him. This condition springs from the sympathy of the brain with the oppressed stomach; and it is of great importance to distinguish such an affection, purely gastric, from genuine apoplexy, since, if the stomach be not relieved, the stupor will increase, and the sufferer perish. Such attacks are, however, not frequent, and principally occur when the muscular powers of the stomach are so impaired as to prevent the usual efforts which Nature makes to throw off an unmanageable burthen.

Should indigestion continue to recur in the stomach, the paroxysm will assume a more troublesome character; its symp-

toms will increase in number and extent, and the mischief will speedily involve other functions: but it may be useful to examine the causes to which the origin of the disease is attributable. In every change which the aliment undergoes there is the combined operation of *mechanical* aad *chemical* agents. When, therefore, the food is introduced into the stomach, it owes its conversion into chyme to such combined actions, viz. *the chemical power of the gastric juice*, and *the mechanical*, or, in other words, *the muscular movements of the stomach*; which, in vernacular language, may aptly be called *churning*. It is to the failure or imperfect operation of the one or the other of those necessary actions, that indigestion is to be assigned. However perfectly the gastric juice may be secreted, if the mass be not sufficiently *churned*, it cannot become proper chyme; and the most active motions of the stomach will not compensate for a deficiency in the alimentary solvent. It signifies very little whether the paucity of the gastric liquor be absolute or relative, since, in either case, an indigestion must follow. The quality and quantity of the gastric fluid may be influenced by causes immediately acting upon the stomach, or by those which affect it through the medium of sympathy. Under the first class may be noticed those that produce a direct influence upon the nerves of the stomach, and without whose healthy action no secreting surface can perform its functions with regularity. Among these, the injudicious ingestion of narcotic substances, or of alcohol, deserves a distinguished attention. The languor springing from inanition also brings on a "discontented state of the stomach;" and, under this state, the gastric juice is not secreted in a healthy manner. But all these causes yield in importance when compared with those which act through the medium of sympathy, namely, the various passions of the mind, &c. the very singular and notorious sympathy which prevails between the skin and the stomach; and also of the latter viscus with the urinary organs. We are now to consider the causes that may operate in depressing, or paralysing the muscular powers of the stomach, and by which causes the mechanical process, essential to chymification, is perfectly performed. Of these, undue distension is perhaps the most common, and, at the same time, the most powerful. This may be proved, not only from ample observation on the stomach, but by the analogy of other cavities; and particularly when the bladder is over-distended with urine, or the rectum by fæces. If this observation be applied to the stomach, it is easy to comprehend why, in an over-distended state of that viscus, vomiting can scarcely be excited by the most violent emetic; and it is also compre-

hensible, upon the same principle, how greatly the muscular fibres may become *permanently* debilitated by the repetition of such an excess. This over-distension is principally ascribable to food which has a tendency to swell from the heat and moisture of the stomach; and, from this circumstance, a person may eat without any sensation of fulness, and yet in the space of an hour he will experience it in a most distressing degree. This generally happens where much new bread has been eaten, or nuts; or from soda water; or, indeed, from any beverage which contains fixed air. There are certain postures of the body, common to shoemakers, tailors, engravers, and clerks at the writing desk, which, by preventing the necessary egress of the contents of the stomach, favour an accumulation in its cavity. In this, and similar ways, indigestion is either caused or exasperated.

2. *Imperfect Digestion in the Duodenum.* Here the author introduces the opinions of his friend Dr. Yeats, and as these are well known we must refer to the work itself. How far the duodenum deserves to be denominated a "*second stomach*," we have already discussed;* and how far the sentiments expressed concerning its pathology, and the conclusions drawn from them are sound and practical, or visionary and theoretical, let others determine. But it is our duty to call attention to the subjoined extract.

"In some cases (of duodenal indigestion) a severe pain is felt in the back, especially in the region of the right kidney; and Dr. Yeats states a symptom, which I have also noticed on such occasions—a faint and fluttering pulse, occasioned by the pressure of the vena cava against the spine by the distended intestine." 226.

Is it come to this?—*A faint and fluttering pulse, in duodenal indigestion, is occasioned by the pressure of the vena cava against the spine by the distended intestine!* Is an assertion like this to be tolerated by a profession boasting, and justly boasting, of extended views, accurate observation, and rigid induction from proven facts? What is it calculated for but to deceive the unsuspecting, and to mislead the ignorant? What is it but to supply the want of knowledge by bold conjectures only, and to pretend to a perspicacity which is beyond humanity? Be it for ever borne in mind, and let it for ever

* New Series, No. 8, April 1826, p. 422.

stand as a monument of mortal vanity, that the assertion, now so deservedly reprobated, is made with all the confidence of demonstration; yet is it undeniable that no man can determine such a point, or render it even plausible, by sophistry. We call upon Dr. Paris and Dr. Yeats to explain to the public how they know that "*a faint and fluttering pulse is occasioned by the pressure of the vena cava against the spine by the distended intestine;*" for we do most unequivocally declare that the alleged circumstance is physically impossible from the anatomical construction of the parts. But admitting the possibility of such a pressure, what proof is there that it could produce "*a faint and fluttering pulse?*" as if such a pulse could not, and did not often, arise from various other, and more likely causes than a passive and polite vena cava permitting a rude and distended intestine to press it against the spine.*

3. *Of Head-aches which arise from Indigestion.* From the intimate sympathy which subsists between the nerves of the stomach and the brain, it is not extraordinary that any casual derangement of the digestive process should communicate its influence to the head. Dr. Warren† states, that there are two forms of dyspeptic head-aches; the one he refers to a fault in the stomach, the other to a defective action of the upper bowels. The former is distinguished by a languid and feeble, but not an unnaturally frequent pulse; the tongue is whitish and slightly coated; the edges are of a pale red colour. There exist a mistiness before the eyes, and general indistinctness of vision, also a dull pain or weight in the head, with some confusion, slight giddiness, and an apprehension of falling. These symptoms are attended with slight nausea, or an uneasiness and sense of irritation in the stomach; and often likewise by a

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* Besides, we ask Dr. Paris and Dr. Yeats, in what possible way pressure on the cava inferior, which only *partly* supplies the *right* chambers of the heart, can cause a weak and fluttering pulse in the arteries arising from the *left* ventricle, after the blood has made the round of the short circulation in the lungs? In the whole course of our reading we never remember to have seen so strange a statement from any medical writer, or one so entirely untenable. If the heart of a man consisted of a single ventricle, and the distended duodenum could mechanically interrupt the flow of blood into that ventricle, there might be some colour for such an assertion. But such is not the case. Every man of clinical observation, and especially every man who has ever experienced dyspepsia, well knows, how much the action of the heart is influenced by any source of irritation in the stomach, duodenum, small intestines, and even the colon, without having recourse to such a clumsy mechanical explanation as pressure on the vena cava.—*Rev.*

† Medical Transactions, vol. iv. p. 333.

feeling of constriction about the fauces, accompanied with a watery secretion. Coldness and slight stiffness, or numbness of the fingers are sometimes present. The other parts of the system are, in general, affected with a great degree of nervous sensibility. The second species of headache, or that depending upon irritation of the bowels, probably in the doudenum, is remarkable for the appearance of brilliant ocular spectra, which distress the patient; there is chilliness of the body, and coldness and dampness of the hands and feet. The pain in the head is very severe, attended with a sensation of coldness and tightness of the scalp, slight giddiness, weight, distension, and stiffness of the eye-balls. In some cases, as these symptoms increase, they are accompanied by tingling and numbness of the fingers and hand. The tongue is commonly covered with a yellowish-white fur, and is often very considerably coated with it. The pulse is of the natural frequency, but languid; nausea is oftentimes present, yet seldom amounting to vomiting. There are usually flatulency, and a seeming dryness and inactivity of the bowels. The last symptom is pathognomonic; the sufferer feels as if his intestines had lost their sensibility, and were unable to propel their contents, which occasions a peculiar sensation of weight and obstruction. The appearance of the alvine discharge varies very much, yet they are always of an unhealthy kind. Generally, bile shows itself in too large quantities; sometimes of various colours, and of different degrees of viscidity; occasionally the evacuations have a natural look, but display portions of undigested food. At other times, the stools are of a faint yellow colour; and, floating upon water, they give an odour like that of saliva. A very common appearance, especially where there has been great dejection of spirits, is a loose discharge, of a dark greenish-brown colour, which smells like the grounds of sour beer.

The *stomach* headache generally occurs in the earlier stage of digestion;—that which may be termed the *duodenal** takes place when the food has passed into the intestine. The former

* In our opinion this is purely conjectural. How is it possible for Dr. Paris to know, except by mere supposition, that there is a *duodenal* headache, which, with singular good breeding, appears after the food has entered into the duodenum, lest it might previously have spoiled the appetite and interfered with chymification? Alas! diseases are not imbued with politeness; and it is apparently impossible for any physician to pronounce, with confidence, as this author does, that one headache occurs "*in the earlier stage of digestion*," and the other arises "*when the food has passed into the duodenum*;" for, as we shall attempt to prove in the next note, such headaches most generally develope themselves when the stomach is, and has long been empty, and in a state of atony.—*Rev.*

is relieved by an emetic;—not so the latter, but a purgative mostly curtails it, because the offending cause is thereby expelled.

From the symptoms above related, a discrimination can be made between these two species of headaches. But pain in the head may arise from causes distinct from the alimentary canal; as from congestion of the brain; its internal disorganization; diseased bones of the skull; or from a deranged state of the nervous system. For the diagnostic symptoms, which are not at all ambiguous, we refer to the paper of Dr. Warren, or the pages of Dr. Paris.

The nervous headache is distinguished by the absence of constitutional disorder, and by the smallness of the space on the surface of the head which the pain occupies. There sometimes occurs a soreness of the scalp, with shooting pains, that are produced by the slightest touch; and these are probably dependent upon some biliary derangement. There is also a species of headache which would appear to depend upon a languid circulation through the brain;—this arises after an excess of wine; or, in females, during the catamenial discharge. It resembles numbness rather than pain, or that sensation producible by intense cold. The characteristic symptoms are, langour of the circulation, pallor of the countenance, and other indications of debility.

If the dyspeptic headache be allowed to take its course, it will generally terminate in a few hours; but, when it has become habitual, it is often protracted through one, two, or more days. It is cured by rectifying the errors of the digestive organs.*

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* Without impeaching the accuracy of Dr. Warren's opinions on the stomachic headache, we shall briefly express our own. Long experience has convinced us that this affection most generally arises when the stomach is empty and in a state of atony. Hence, (and observation verifies the remark) it commonly invades early in the morning and in the evening;—periods when the digestive powers having been for hours completed, the stomach must necessarily be vacant and weak from its previous labours. The manner in which a cure, or, at worst, relief, occurs, confirms the correctness of these sentiments. Who has not seen a dyspeptic sufferer recline his aching head, early in the morning, either on the table or his hand, and be unwilling to speak? Yet no sooner does he take breakfast than the headache usually departs, and he begins to converse, and even to be cheerful! Who has not noticed such a headache to be cured by dining, or by drinking a glass of wine, or of malt liquor? And finally, who has not observed such a headache, occurring in the evening, and exceedingly distressing, to be dissipated by a light supper or a draught of wine? Every medical man must have witnessed these facts. The principle is the same in all, and in some others presently to be mentioned. The stomach is weak and void, the head sympathises with it, and

4. *Indigestion from Biliary Derangement.* Omitting this subject, which is done full justice to, but which contains nothing original, we advance to an infinitely more engaging one, namely,

5. *The Progress and Symptoms of Chronic Indigestion.* From considering a fit of indigestion in the stomach or duodenum, let us now proceed, says Dr. Paris, to whom, at present, we are historians, and not critics, to trace its consequences, when it is frequently repeated and protracted. In this case, other organs become successively involved, and a train of distressing and complicated symptoms arises. The dyspeptic patient having for some time suffered from those feelings of uneasiness which have already been described, experiences some diminution of his strength. This, at first, is only occasional, but growing worse in spite of his best hopes, he now consults a physician. At this juncture it is of great impor-

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the exciting causes are banished by food, drink, or both. The seat of this headache is, apparently, in the occipito-frontalis muscle. The pain is singularly fugitive; changing its place repeatedly during two or three hours;—Sometimes over the frontal sinuses; then the forehead; next the temples, or occiput; and again to the first parts:—Occasionally occupying a very small, or large extent. This headache is, by many, called rheumatic, for the same texture is involved as in rheumatism; and every acute observer knows how intimately general rheumatism is connected with a disordered stomach and bowels. It is also, at times, termed a sick one, but the expression is objectionable, and calculated to mislead, since it seems to imply that the aching and sickness are coeval, whereas it is the intensity of the pain that induces sickness, and which most readily arises in a weak and empty stomach. When the patient is able to vomit, though scarcely any thing is ejected, for obvious reasons, he is mostly cured of his headache, and why? Because the act of vomiting is a stimulus, tantamount to aliment, whether solid or liquid. Again, no person suffers from this headache while he endures pain in the stomach; for when the pain commences, the headache vanishes almost instantaneously;—and wherefore? Because the pain is a stimulus, and alters that state of the stomach on which the headache depended. Thus is it clear, that the stomachic headache most generally springs from atonous and vacant condition of the stomach; that such a headache is very commonly removed by stimulants, and that, of those particular stimulants, there are four kinds, namely *food, drink, vomiting*, and *pain*—all of which operate upon a like principle, the overcoming of a state of atony in the stomach.

It will probably be objected that pain and vomiting ought rather to be classed as sedatives than as stimulants. Let any one observe the state of the circulation, the secretions, &c. during and after vomiting, and he will be convinced that this process is a general stimulus or excitement, while it lasts. The same may be said of pain It quickens the pulse and excites the whole system But, waving all argumentation about the terms stimulant and sedative, we maintain that the action of vomiting generally relieves the head —and that the return of pain in the stomach is as generally accompanied by a cessation of headache.—*Rev.*

tance to distinguish between a feeling of transient depression, invariably associated with alimentary disturbance, and that debility which announces a general diminution of constitutional energy. In the former case, there are periods in which the patient feels perfectly well and strong, while, in the latter, although his spirits may vary, he never rises to the healthy standard of vigour. His usual avocations are irksome, and even laborious; the slightest exercise occasions fatigue, and deluges him with sweat. The tongue is usually coated on the posterior part, and on its centre, with a brownish-yellow fur. The bowels are, by turns, constipated and too much relaxed; the pulse, at this time, is generally slow and small, though somewhat hard; the countenance is more pallid than common; the eyes seem sunken and their lids swollen, while the eye-balls are occasionally injected with yellow streaks. In some instances heart-burn and a sense of oppression are experienced after meals; but in others, only langour and extreme listlessness. On other occasions, a sense of constriction is felt about the fauces, and a difficulty of swallowing also, as if the œsophagus presented a mechanical obstruction to the transit of aliments. Dizziness; unusual drowsiness; pain in the head; ringing in the ears; a disagreeable taste in the mouth; an altered state of the salivary secretion, sometimes limpid, like water, and at others, thick and ropy; palpitation and a sense of faintness, are symptoms which, also, in a greater or less degree, commonly distress the dyspeptic sufferer. His hands are alternately hot and cold; in the former state they are dry, in the latter, more usually damp. His nights are sometimes, but not generally, disturbed by restlessness and uneasy dreams. He wakes in the morning without that feeling of refreshment which follows repose in health; is unwilling to rise, or, indeed, to move, for his limbs ache, the muscles of the trunk are even sore to the touch, and every change of position has its attendant inconvenience. Any alteration in the weather is felt as a serious evil;—if it become a degree or two colder, he creeps to the fire: and sarcastically and bitterly inveighs against the variableness of the climate; while, if its temperature be raised, he is oppressed with heat. His bowels become more and more untractable; the usual purgative ceases to produce its accustomed effect; he increases the dose, and, when it does operate, the action is too powerful, and its consequences are not easily checked;—a diarrhæa is established; and this again, in its turn, is superseded by a still more obstinate constipation. This evil arises from the inconstant and unsettled state of the alimentary secretions, and it is not easy to graduate an artificial stimulant so that it shall always correspond with the varying state of the

organs upon which it is to operate. The depression of the patient's spirits increases as the disease advances: he loses all hope; wastes in flesh, suffers a thousand distressing sensations, and fancies the existence of a thousand more. Wandering pains are felt in the bowels and side; a tenderness in the epigastrium is experienced on pressure; the abdomen is often preternaturally tense; his breathing is occasionally oppressed; a short dry cough distresses him, and expectoration is extremely difficult. If, at this period, the alvine discharges be inspected, they may present every variety of morbid appearance, since they may be unnatural in colour, odour, consistence, figure, or quantity; or yeasty, bilious, fatty, like tar, &c. &c. A diminished flow of deep-coloured urine is invariably associated with febrile action; while an increased quantity of pale urine more generally indicates a peculiar state of nervous irritability, without fever. But, in estimating this circumstance, we must inquire into the various excretions of the skin. *Albuminous* urine, in which a coagulum is produced by heat, is occasionally met with in dyspepsia; and Dr. Prout thinks that it is derived from the chyle. But of all changes in the urine, none, perhaps, are less equivocal, or more indicative of a deranged state of the alimentary functions, than the deposit of lithic acid, either in an amorphous or crystalline form. Sometimes the eating of bread induces such a change, and this lithic diathesis has been overcome by the substitution of biscuits. In this, and similar instances, the importance of judicious diet is astonishing. According to Dr. Prout, there are three divisions of lithic sediments, viz.—1. *Yellowish or nut-brown;* 2. *Reddish brown or lateritious; and,* 3. *Pink* sediment. The patient, to return from the digression we have made concerning urine, will, in this stage, sometimes labour under sudden disturbance on first falling asleep; fearful startings; catching of the limbs; thoracic distress, not unlike *angina pectoris;* together with imaginary flashes of fire, like lightning; and a numbness of the hands, which is, at times, only felt in one or two fingers. Usually there is sore throat, occasioned by relaxation; the skin is frequently dry, and even scaly; the tongue also becomes drier, and sometimes clean, and of a bright colour. Thus harrassed, the unhappy invalid, in vain, tries change of air: his emaciation increases; his ancles swell; and the general debility calls other diseases into action, various in kind and locality; but, commonly, the weakest part suffers. And, "*when any new disease is permanently established, the original symptoms are mitigated, and sometimes wholly suspended; whereas, if the new affection be only symptomatic, instead of relieving, it*

often aggravates them." The permanent tenderness of the epigastrium, and a clean, bright tongue, are the best indications of approaching mischief; and not hardness of the pulse, since it is very treacherous, and now and then soft, and undulating, even under certain organic affections. Dr. Philip has *proved*, by his experience and reasoning, that "*long-continued irritation at length terminates in inflammation and organic derangement in the part affected.*"*

After indigestion has long harrassed the stomach, its villous coat becomes affected, and as the pylorus, from the peculiar nature of its office, is singularly exposed to the continued source of irritation, it is certainly very liable to inflammation, and this may, perhaps, explain the accession of the tenderness in the epigastrium. Yet here much doubt prevails, since the same often arises from various obvious and internal causes, and, hence, considerable caution is demanded, whether in opinion or practice. For, notwithstanding all Dr. Philip urges, it is difficult to imagine how serious mischief can take place in the

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* We would be glad to learn from Doctor Paris where and how Dr. Philip has *proved* this position. We do not deny that sympathetic disorders (from dyspepsia) of a distant organ, as the heart, the brain, the kidneys, &c. may terminate in organic disease; but we protest against that *frequency* of such termination, which is every where to be *inferred*† from Dr. Philip's work. Thus, we will take head-ache, which is, in a given instance, to be considered as merely symptomatic of indigestion, the latter being (for the sake of argument) unequivocally present at the time the head-ache first appears. After a certain period, the patient dies, and, on dissection, we find organic disease of the brain, and no appearance of disease in the digestive organs. Here, then, Dr. Philip and Dr. Paris tell us, is a proof that the symptomatic disease has turned into organic, and leaves no trace in the original seat of disorder, the stomach. But we have just as good foundation for the opposite reasoning. We all know that the sympathy between the two organs is reciprocal. The affection of the head may be primary, and that of the stomach secondary. The disease, in the former, may go on to disorganization, and cause death, which is, in fact, often the case, and then, on dissection, nothing can be found wrong in the stomach. There is something like proof of this view of the case, but there is no such thing as a shadow of proof, but mere conjecture, in favour of the other. Here, then, is one of the many instances in which Dr. Paris has taken for granted the dicta of others, without giving himself the trouble to think for himself.

If Dr Philip and Dr. Paris ask how it is that, as the disease becomes aggravated, or, in other words, structural in the brain, (allowing this to be the primary seat) the affection of the stomach subsides? We reply that they have answered this question themselves. They say that, while the head-affection is merely symptomatic, no relief is given to the stomach; but when it becomes permanent or organic, the stomach affection subsides. The explanation, therefore, bears either way Dr. Johnson has fully taken up this subject in his new edition of the Influence of Tropical Climates, to which we refer.

† We say *inferred* rather than distinctly asserted.

pylorus without the occurrence of vomiting. When the bowels have long been disordered, their villous covering is tumid, turgid with blood, and sometimes ulcerated; and these appearances, according to Mr. Abernethy, are most manifest in the large intestines. Protracted dyspepsia likewise occasionally terminates in a disease of the mesenteric glands; and when the connexion which subsists between the function of the kidneys and that of the chylopoietic organs is considered, the disturbed appearance of the urine, and the supervention of calculous disorders, can excite no surprise in cases of dyspepsia.

Having finished this part of his subject, Dr. Paris presents the reader with a tabular arrangement, or scheme for investigating the causes, nature, and seat of indigestion, comprising leading questions concerning specific and general symptoms; particular circumstances; occasional questions; general observations upon physical character; and on collateral circumstances with respect to the season of the year, nature of prevailing epidemics, and the weather; and, finally, he comments on the relative importance of each with shrewdness and good sense. But with these parts we cannot meddle, since we must hasten forward to therapeutical matters.

Of the Cure of Indigestion, as it relates to Diet, Exercise, and Medicinal Treatment.

The previous habits of the patient, and the origin and seat of the disorder, are the circumstances from which the physician is to derive his indications of cure. If the disease have not extended its influence beyond the stomach and bowels, the curative means will be more simple, and, at the same time, more prompt in their salutary operation, than where it has involved the functions of remote organs. But, in the latter instance, the symptoms are so frequently those of mere sympathy, that the practitioner has often the satisfaction of observing their removal by remedies that can only have acted on the primæ viæ.

"The dyspeptic patient should rise from his bed as soon as he wakes in the morning: for, as Mr. Abernethy justly states, 'many persons, upon first waking, feel alert, and disposed to rise, when, upon taking a second sleep, they become lethargic, can scarcely be awakened, and feel oppressed and indisposed to exercise for some time after they have risen.'* He should then walk, or rather

* We can state, from pretty extensive observation of this class of disorders, that early rising, where a contrary habit has been long indulged in, is not

saunter, for some time in the open air, previous to taking his breakfast, the material of which is to be selected according to the principles already discussed. He is now in a condition to follow his usual avocations; but it is a circumstance of no slight importanee to procure an evacuation at this period, which is easily effected by habit; a person who accustoms himself to the act at a certain hour of the day, will generally (?) feel an inclination at the appointed season. The invalid should not allow his occupations, if sedentary, to engage him for more than three hours, after which, exercise on horseback, or by walking, should be uniformly taken." 262.

The hour of dinner should not be later than three o'clock, and the patient ought to enjoy an hour of previous rest. The dinner should consist of few articles; they must be carefully masticated; and the invalid should leave the table at the moment he perceives that the relish given by the appetite ceases.* The allowance of wine must be guided by former habits and present condition. It is essential that the patient should enjoy quietude for at least two hours after dinner. Afterwards he may walk or saunter for a short period; and at six or seven o'clock he may take tea, or some other diluting liquid; after which, exercise will be highly useful to assist the sanguification of the previous meal. In the summer season, active exertions, according to the sufferer's strength, will be advantageous. At ten o'clock he may take some toasted bread or a lightly-boiled egg, and at eleven he may go to bed; and, if necessary, from previous custom, he may indulge himself with a glass of wine and water. The bed-room should be well ventilated, and its temperature ought, as nearly as possible, to be that of the apartment from which the invalid has retired. A well-stuffed mattress is to be preferred to a bed of down, and the curtains should not exclude the free circulation of air. He ought not to retire with cold feet, since nothing contributes more readily to disturbed sleep and uneasy dreams than the unequal circulation which takes place on such occasions.

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very easily, or very safely adopted, all at once. In many instances where we have seen it tried, the patients have observed that "they were fit for nothing all the day afterwards." It must, therefore, be cautiously commenced, though we acknowledge that, when the habit is once acquired, it is a powerful mean of preserving health.—*Rev.*

* Before this, in many cases. In a considerable proportion of dyspeptics, the appetite outstrips the digestion, and the grand criterion of the quantity is not the cessation of relish, but the state of the feelings one, two, or three hours after dinner. For the truth of this remark we appeal to the dyspeptic. We do not believe Dr. Paris ever laboured under indigestion himself.—*Rev.*

Acidity of the Stomach, Flatulence, &c.

In the opinion of our intelligent author, the acidity which occurs in the stomach of dyspeptic sufferers may, occasionally, depend upon the fermentation of the food, or a vitiated state of the gastric secretion. In cases of imperfect chymification, it would appear more generally to depend upon the matter generated by the food; for it is instantly relieved by a dose of carbonate of soda; but, where it is symptomatic of some disease in a distant organ, as the uterus, for instance, it would seem to be connected with an acid state of the gastric juice, and is, in consequence, not relieved by alkalies.

"I am not aware that this distinction has ever been established, but I am so well satisfied of its truth, that I have, in several cases, been led, from this circumstance alone, to distinguish between primary and symptomatic affections of the stomach. Unrelenting and continued cardialgia ought to lead us to suspect disease in some other organ; although I am not prepared to state that it is never the effect of a primary affection of the stomach."* 264.

In ordinary cases of acidity the bowels are to be opened, and the digestive organs brought into healthy action by a well regulated regimen, and by such medicines as may give tone to the stomach, and increase that propulsatory power of the intestines, which they demand to pass off the undigested portions of food. Purgatives are better than emetics, and still more so because the disease is generally complicated with fæcal congestions in the colon. Five grains of the *extr. colocynth. comp.* or of the *pil. cambog. comp.* combined with two of calomel, afford a very efficient remedy. This done, the peristaltic motion of the bowels may be kept in a state of gentle excitement by the following draught.

"℞. Sodæ Tartar.
—— Carbon. āā ij.
Aquæ Anethi, f 3i.
Tinct. Columbæ, f 3i. Fiat haust. cum acidi tartarici granis quindecem in aquæ semi-fluid-uncia solutis, in impetu effervescentiæ sumendus."

* We are convinced that obstinate cardialgia and acidity are, in nine cases out of ten, the consequence of eating too much in *quantity*, whatever that quantity may be. We have seen these complaints quickly cured by reducing one half of the food at dinner—confining the *quality* entirely to plain meat and stale bread, and permitting no other drink than a table-spoonful of brandy to a tumbler of water. Let this be tried, with half a grain or a grain of the sulphate of quinine thrice a day, and mark the effects. We, of course, allude to cases unconnected with organic disease of the pylorus. Where there is any suspicion of the latter, leeches, counter-irritation, and farinaceous food offer the only chance of arresting the progress of the malady.

The exhibition of alkalies and absorbent earths will remove the present evil, but not produce any beneficial influence in averting the cause. Carbonate of ammonia is, perhaps, the most efficacious of the antacids, for it neutralizes a portion of the acid matter which seems to exist in a gazeous state in the stomach, and, consequently, eludes the action of the fixed salts. It is, also, calculated to relieve the debility that is so common an attendant. After the bowels have been thoroughly evacuated, very small doses of opium are sometimes useful, especially when painful cardialgia exists, and which symptom is a common one of hepatic obstruction. In symptomatic affections, nitric acid has been serviceable. Diarrhœa not unusually arises from the irritation of the acrid matter, and for this, small doses of magnesia, with a few drops of laudanum, in the form of a draught, will prove generally beneficial. But permanent relief is to be sought in a change of food. All vegetables should be superseded by a diet of animal food; provided the stomach will consent, since that organ will never digest that against which the inclination rebels. Experience has demonstrated the pernicious effects of all fried articles, butter and greasy viands, pastry and crude vegetables, and likewise of astringent wines. Broths of every description, but principally those made of the meat of young animals, are a fruitful source of heart-burn: Veal contains a saccharine principle which is very susceptible of acetification. To invigorate the alimentary canal, the best medicines are those composed of pure vegetable bitters, with some aperient salt. The infusion of quassia, in the dose of half an ounce, with two drachms of the infusion of senna, and a drachm of tartrate of potass, warmed with any aromatic tincture, is an excellent compound. The infusion of rhubarb, quickened with a small proportion of the compound tincture of aloes, is a very useful remedy.

Flatulence is often a very distressing disease. Sometimes it is associated with acidity, but frequently it is the only symptom indicative of an imperfect digestion. Whether the gas, with which the bowels are inflated, be a product of fermentation, or a secretion by their vessels, is a question that has been much discussed. It may, probably, arise from either of these causes, although it is generally attributed to the first. In some cases, there is contained sulphuretted hydrogen gas, and eructations take place which are characterized by the smell of rotten eggs. Where this occurs, the existence of great alimentary disturbance may be inferred; since the natural affinities, by which the digestive changes are produced, appear to be subverted, and a new chain of compositions and decompositions established. The albumen would seem to

be the substance from which this compound is generated; and in several instances relief has been obtained, by confining the patients to a strictly farinaceous diet. Ordinary cases of flatus are, however, of a different nature; the air seems to be the product of fermentation, and the cure consists in avoiding such vegetables as are of a flatulent kind. But an undue sensibility or irritability of the intestines may occasion distension without any morbid increase of gas, and particularly so in certain states of the alimentary canal. Hence, in such cases, we shall gain more advantage from calming the irritability of the bowels, than by attempting to dispel the flatus by carminatives. Small doses of the extract of hyosciamus, combined with two grains of ipecacuan, give relief in attacks of flatulence which have resisted common medicines.

Protracted dyspepsia not unfrequently depends upon a morbid condition of the alimentary surfaces. The mucous membrane becomes affected, and the disorder is not removed until the adoption of measures to restore its healthy secretions. The administration of a lenient purge every morning, with small doses of the *vinum colchici* repeated twice a day, is eminently successful. Where the dyspeptic disease is connected with duodenal irritation, no medicine is more useful than this wine, which is to be accompanied by occasional laxatives. Dr. Yeats highly commends the sulphate of potass—a scruple twice a day, in the infusion of quassia, and three grains of the *pil. hydrarg.* with or without two grains of extract of aloes, according to the state of the bowels. *Nothing is more mischievous than active purgation in every stage of dyspepsia.* This is a most important truth, and deserves to be recorded in italics. In cases even of loaded bowels, a gentle but continued stimulant is best, because less irritating; and when the biliary discharges are faulty, the *hydrarg. cum creta* and *pulv. epecac.* are beneficial in doses of three or four grains. An infusion of senna, graduated in strength according to particular circumstances, and combined with small doses of some neutral salt, is the best form of a purgative. For accumulations in the colon a dose of the *pilul. cambog. comp.* is an effectual remedy. The *decoctum aloes compositum*, occasionally assisted by the *infus. armorac. comp.* is a truly valuable medicine in all affections connected with a torpid or irregular action of the muscular coats of the intestines. In such cases there are often spasm, distressing symptoms of flatus, borborigmi, eructations from the stomach; and the remedies most likely to afford relief are aloetic stimulants. The exhibition of the white mustard seed is very serviceable in cases which are marked by alimentary

torpor; and in affections attended with muscular irritability; or in those associated with a diseased state of the mucous surfaces it is unquestionably useful. This seed is also advantageous in costive habits; and has been found to correct that species of diarrhœa which attends a diseased condition of the intestinal mucous membrane.

"The practitioner is well acquainted with the doctrines of Broussais: he maintains, that almost every disease arises from an inflammatory affection of the digestive canal; and, although the absurdity of so general a proposition must be admitted, we shall act wisely in suspecting the existence of such a state of disease in protracted dyspepsia: tenderness upon pressure, and the appearance of the discharge from the bowels, will generally announce such a condition; and lenient purges, the application of leeches, and a low diet, will furnish the best methods of treatment." 273.

The utility of bitters in certain states of dyspepsia is very questionable; and their exhibition is often a dangerous practice. Yet, where the disease springs from a mere want of tone, and is not complicated with intestinal irritation, they are, of all others, the most effectual medicines. Blisters are of eminent service in cases of irritation of the bowels, accompanied with tenderness on pressure; and they will frequently stop obstinate vomiting when other means have failed. The external application of heat to the region of the stomach will often allay gastric irritation that depends upon the presence of indigestible matter. The process of chymification is thus promoted by a species of contiguous and not very intelligible sympathy. It is the same when heat is applied to the feet, since this connexion is still less apparent, but that the digestion of a person in health may be arrested by the sudden access of cold to the lower extremities is a well-known and remarkable fact. The use of frictions, when applied to the abdominal region by a flesh-brush, deserves distinguished praise. The best time is night and morning, and the application should be continued for a few minutes.

We can not do otherwise than omit the long and interesting observations on the use of flannels; the cold bath; practical directions for bathing; the warm bath; the shower bath; change of air; meteorological remarks; and change of scene and habits, which is as essential as the change of air.

For the unhappy individuals labouring under *tabes mesenterica*, the author, writing from experience only, and having uniformly found a vegetable diet to prove injurious, strongly recommends one entirely composed of animal matter. But to ensure a beneficial result, the meals must be scanty, and in

quantity below what the appetite may demand; the intervals, also, between the repasts, should be lengthened. In this way are the unwilling absorbents induced to perform their duties with greater promptitude and activity. In affections of this kind, the stomach rarely loses its powers; and it is less an object to provide easily digestible, than highly nutritive food.

Dr. Paris's observations on the diet of pulmonary invalids, and the treatment of phthisis are so brief, and, according to his account, which we see no reason to doubt, so important, that it would be unpardonable, if we declined to state them at full length, and in his own appropriate language.

"In tubercular affections of the lungs, it has been often disputed whether the low diet, so universally prescribed in such cases, is that which is best calculated to arrest the progress of the disease. From my residence at Penzance, and from the various cases which have fallen under my care, in consequence of having there practised, I may, without the risk of incurring the charge of presumption, assert, that few physicians have possessed greater opportunities of experience in this complaint than myself. The conclusions to which this has led me may be expressed in a very few words. Where there exists, in the earlier stages, great lassitude, coldness of the extremities, a quick but weak pulse, a tightness across the chest, as if it were confined by cords, but unaccompanied with acute pain in the side, a strictly vegetable diet is injurious. I have in such cases prescribed a regimen similar to that which I have above proposed for the cure of mesenteric affections; and I have certainly found it to be useful. To assert that I have cured an organic disease in the lungs would be more than foolish; but I have certainly arrested its progress in some cases, and I have restored others to perfect health who had been gradually declining under a different treatment. Where a permanent cure has been effected, the presumption is, that the lungs were never actually deranged in structure, but the symptoms were of a nature to have justified such a conclusion. The medicine upon which I place the greatest reliance in such cases, is the extract of hemlock; and were I to express the extent of my own confidence in its powers, I might, perhaps, fall into the dangerous error, against which I have so strongly protested in my pharmacologia—that of bestowing such extravagant praise upon a remedy as to detract from its reputation. I shall, therefore, only observe, that this remedy tranquillizes the irritation of the lungs to a greater degree than any other medicine with which I am acquainted; but, in order to ensure so desirable an effect, it must be given in much larger doses than those in which it is usually administered. I usually commence with a dose of five grains, three times a day, which I gradually increase to ℈i, or even more: it will generally produce a slight giddiness, nausea, and a tremor of the body; a peculiar heavy sensation is also experienced about the eyes, and a tightness across the forehead; and the bowels frequently become relaxed: unless some of these sensations are produced, I

consider that the remedy has not had a *fair trial*. The following is the formula for the preparation of the mixture which I have found to be so highly serviceable. If I am required to explain the *modus operandi* of each ingredient, I might, perhaps, fail in inspiring that confidence in its utility, to which I am convinced it is entitled. The practitioner must, therefore, rest satisfied with the results of experience, and accept facts in the place of theory.

"℞. Extract. Conii, et
Extract. Hyosciami, āā ℥ij.
Mucilaginis Acaciæ, f ℥ij.
Tere simul, et adde
Liquoris Ammoniæ Acetatis, f ℥i.
Aquæ puræ, f ℥ivss.
Vini Ipecacuanhæ, f ℥i.
Syrupi Rhæados, f. ℥ij.
Fiat mistura, de qua sumantur cochlearia duo ampla ter quotidie." 291.

After the above extract, there follows a history of five cases, illustrative of different states of dyspepsia, and with which the work terminates. We have striven hard to compress a large quantity of useful and various matter into a comparatively small space, but for this we claim no merit, since it is but right feeling in a public journalist not to presume upon what he has done, but only to feel regret that he has accomplished so little.

We close the pages of Dr. Paris's book with a favourable opinion of it, and of its ingenious author, and to recommend the one, and to eulogize the other, are acts no less of duty than of pleasure. The merits of the production are three-fold;—for it contains an excellent account of the anatomy, physiology, and pathology of the digestive, and collateral organs—presents a valuable treatise on alimentary matters—and exhibits a respectable dissertation on the stages of indigestion, and their modes of cure. We entertain no doubt that it will be particularly interesting, and highly acceptable, not only to the mere medical practitioner, and the dyspeptic invalid, but to the man of science, and to the inquisitive gentleman. For the sake of the latter class we could have wished the style had been more terse, correct, and polished. yet, where there is so much merit, it is scarcely fair to complain of trifling blemishes, whether of diction, or of matter. In him, who has written on almost every subject from the highest to the lowest, who has ably explained the nature of the coagulating, antiputrescent, and solvent powers of the gastric juice, and then stooped from the zenith of his eagle-flight to examine into the preparation of puddings and pancakes, needless repetitions, palpable solecisms, and stagnation of language may well be forgiven, and severe would

be the mind, and frigid the heart, which could visit them with censure.

We had intended to express our own opinions on dyspepsia, but, having most unusually exceeded our limits, we are obliged to reserve them for a future opportunity: and shall only observe that, in our judgment, Dr. Paris has directed too little attention, indeed, hardly any, to the operation of mental causes in the production of that disorder, which are, according to our experience, more operative than all other causes united. That constitutional derangements, that excess, or deficiency of living, that inscrutable local circumstances, that hereditary predisposition may lay the foundation for, and ultimately excite indigestion, are truths which no observing man will question; yet these truths, confessedly influential as they are, sink into comparative insignificancy, when contrasted with the various and powerful affections of the mind, which exercise a harrassing and distressing dominion over the stomach, while this organ, disdaining to be an unresisting sufferer, re-acts at last, and commits reprisals in its turn. In every age and nation, general literature, as well as traditional story, attests the melancholy fact, that the sensitive, the highly gifted, and the most intellectual, have always been the victims to diseases of the head and stomach, and will continue to be until the human heart has ceased to beat.

It has been proved by a contemporary reviewer, that Dr. Paris has sometimes made use of the *scissors* in the composition of his treatise on diet, without the ceremony of acknowledgment. The former is excusable in a work like this—for a man must have lived half his life in a *kitchen*—indeed, he must be a complete *Kitchener*, to write, from personal observation, on the thousand compounds which enter into the human stomach, in the shape of food and drink. We do not wonder, therefore, that he has laid Sir John Sinclair under heavy contributions—that worthy baronet, who has ransacked earth, seas, and skies for materials to keep the frail tabernacle of man a few years longer than usual out of the hands of the undertaker. It certainly would have been wise in Dr. Paris, however, to have guarded his pages and paragraphs with those very significant little landmarks between *meum* and *tuum*, called inverted commas, and thus set the critic at defiance. This, by the way, is Dr. Paris's business, and doubtless he will look to it in a new edition.

Before we take leave of the work, we are induced, for several reasons, to notice one of the cases, the first on the list, of which the following is an abstract.

Case. A. B. (which, by the bye, we have reason to know, means Mr. P.) a gentleman of rank and fortune, aged 24, had suffered, for several months, from occasional head-ache in the evening, at first relieved by strong coffee; but gradually increasing in severity and with shorter intervals. It sometimes attacked him in the mornings, accompanied by sickness and the ejection of strong acid from the stomach, by which the paroxysm was terminated. He was athletic, florid, accustomed to strong exercise, had a good appetite, and ate accordingly. He was temperate in wine. He wrote to Dr. Paris in April, 1824, that his medical attendant was giving him aloes, blue pill, bitters, and alkalies, but that he derived more benefit from lime water than all the other medicines. He was fed on animal food and prohibited from vegetables. From this period he gradually grew worse—his head-aches increasing in severity, till relieved by the discharge of bile and acid from the stomach. He lost flesh, but still was not emaciated. Dr. P. prescribed the carbonate of ammonia an hour after dinner, and animal diet. "He was well purged, and the action of the bowels kept up by small doses of neutral salts. The stools were always natural in their appearance." The slightest deviation from the prescribed diet produced head-ache. In November of the same year, he reported to Dr. P. that the perpetual recurrence of his old head-aches left him nothing for it but to turn them into ridicule. And so he did, in his narrative, but it turned out to be no joke in the end. By a steady perseverance, however, in his plan of diet and medicines, Dr P. informs us, he found considerable alleviation, till March 1825, when the complaint returned as violent as ever, apparently from relaxation in dietetics. On the 18th May, he had a severe attack from the eating of a minced pie, and he complained from this time of listlessness and want of energy. He arrived in London in June, and Dr. P. found him much thinner, but better then than he expected. Here he had rather too many friends, and neglected his diet. He repaired to Leamington, and met with an accident, by which he suffered the amputation of a finger. His health is said to have declined "under this operation"—he lost flesh—experienced increase of head-aches—called in the aid of a popular practitioner (Mr. Jephson)—"under whose superintendance he took drastic doses of scammony, not only without relief, but with an *evident* aggravation of the symptoms." His bowels now (for the first time it is said) exhibited signs of torpor. Strong medicines soon lost their effect, and were followed by stronger, with the same result. It appears from his letter that he was, soon after this, in Ireland, where his medical attendant contrived "a more active combination," which he took daily, but still with decreasing effect. In December Dr. P. received a letter from him, which was nearly illegible, stating that he could scarcely see his own hand, not from dizziness, but from an indistinctness of vision, which became so great at last that he could no longer correspond with Dr. P. He repaired, therefore, to London; "but such was his weakness, and so severe his sickness, that he was many days on the road. *His face, hands, body, and legs, swelled to a considerable degree, and he experienced great difficulty in breathing.* A consultation was summoned, and, as he had had no motion for ten days, Dr. Paris directed ten drops of croton oil without effect, then a scruple of calomel with five grains of scammony, and a dose of the black draught. After some hours, the bowels answered, when a perfectly figured and healthy motion was the result. He was cupped, and blistered on the back of the neck, but his vision became daily more obscure.

His head-ache was relieved, but he constantly experienced a sense of weight and uneasiness in the region of the stomach. *His pulse was regular, but hard, and upwards of* 100 *in the minute.* In this state he continued for ten days, when he was seized with a violent dyspnœa, which was succeeded by hæmorrhage from the lungs, which terminated his existence; in spite of venesection and the usual means. What was the nature of the disease? "I confess that I had long considered the brain as its seat, and *I explained the dyspnœa from a deficient supply of nervous energy, his symptoms bearing a striking analogy to those which were produced by a division of the eighth pair of nerves.*"

"On opening the thorax, the lungs appeared so gorged with blood, as almost to resemble the spleen in texture; they were emphysematous in several places. The heart was apparently healthy in external appearance, but of a large size; upon making an opening into the right auricle and ventricle, these cavities were morbidly dilated, so as to constitute what has been termed *passive aneurism:* their parietes were not thickened. The left ventricle was also unusually large: the valves were in a healthy condition. Upon opening the head, the structure of the brain and its membranes were found in a perfectly healthy state, but without the usual presence of blood. The substance of the brain itself was perfectly blanched, and, upon cutting into it, the usual spots of blood were not produced. This organ, therefore, although not injured in its structure, must have been unfitted for the performance of its functions from a deficiency of blood; in consequence, probably, of the feeble action of the heart. The history of this extraordinary case will admit of much physiological speculation. That the heart was the primary seat of the disease, appears to be the most probable conjecture; the loss of vision must have arisen from a deficient circulation through the brain; and to this also we are to attribute the obstinate state of the bowels. The derangements of the stomach may be referred to its sympathetic relations to the brain. The gorged state of the lungs may be accounted for, either by the imperfect action of the heart, or by the deficiency of nervous energy; for a similar appearance is observed in cases of narcotic poisoning, where the death of the animal takes place from the destruction of the powers of the brain. I have lately met with a case of diseased heart, in which the patient complained of a similar imperfection in his vision; and he died in consequence of pulmonary hæmorrhage. I had no opportunity of examining the body." 300.

We think the history of this case will admit of more than "physiological speculation."

We observed that the instances of *symptomatic* affections changing into *organic* diseases, were not nearly so frequent as might be inferred from the writings of Dr. Philip. The foregoing case offers a remarkable illustration of this position. That the primary disease was that of the heart, is so obvious, that Dr. Paris himself, with commendable candour, admits it, at the expense of his previous prognosis. Yet the symptomatic *disorders* (for they do not properly deserve the name of *diseases*) of the head and stomach, were far more violent and distressing than the greater number of *organic* diseases of those parts usually are. The symptoms went on for years, and yet, on dissection, no alteration whatever of structure was

appreciable in the brain or the stomach. Nothing can be more illustrative than this. Had this gentleman not been examined, *post mortem*, the followers of Dr. Philip would have said—"Oh, here was organic disease of the brain, induced by indigestion, as evinced by the intense pain, and ultimately by the privation of vision," &c. Happily dissection revealed the true nature of the disease.

Dr. Paris has denominated the above-mentioned condition of the heart "*passive aneurism*;" but in this we must beg leave to differ from him. Passive aneurism is dilatation of the chambers, with attenuation of the parietes—active aneurism is thickening of the parietes, with or without dilatation of the chambers. Dilatation of the chambers, without thickening or attenuation of the parietes, is properly termed *aneurism* or dilatation of the organ. "Enfin la troisieme forme, &c. distingue des precedentes, en ce que les parois dilatées conservent leur epaisseur naturelle."* This form of organic disease of the heart is by no means uncommon, and is, strictly speaking, an hypertrophy of the organ, since the whole volume is enlarged without attenuation of its parietes. Now, it is well known that diseases of the brain, as apoplexy, &c. and affections of the respiratory apparatus, as asthma, are the common effects of these enlargements of the heart. Hence the long-continued head-aches—hence the difficulty of breathing, and—hence the final hæmorrhage from the lungs, and death of the patient. But were there no symptoms during life that might have led to the detection of the real nature of the disease? Was swelling of the face, hands, body, and legs, with "great difficulty of breathing," to be considered indicative of disease of the brain, or of "a deficient supply of nervous energy?" We appeal to every one who knows any thing of organic diseases of the heart, whether these symptoms are not the very surest signs of such diseases. As for the theory of defective nervous energy, and "division of the eighth pair of nerves," Dr. Paris cannot possibly be in earnest—it is evident that he is quizzing his friend Dr. W. Philip.

But we have now to ask, not Dr. Paris alone, but all the professional attendants, from Mr. Jephson up to the highest medical character consulted in this deplorable case, how and why it was, that the chest was never examined, and that "a gentleman of rank and fortune" was suffered to die of aneurism of the heart, without the slightest suspicion ever being entertained of the existence of such a malady? Here is another

* Traité des Maladies du Cœur, par M. Bertin et M. Bouillaud, 1824.

illustration of the neglect of the study of auscultation still more remarkable than that which we recorded in our last number, page 606. This indisposition to a new study is rapidly working its own reformation. The rising generation of the profession are all making themselves acquainted with the immortal discovery of Laennec, and let those who despise such information, look to the consequences in a very few years.

Is it possible that Dr. Paris can be serious, when he attributes the blanched appearance of the brain, *in a man who died of hæmorrhage*, to deficient circulation in that organ during life, the patient having *aneurism of the heart*, with "a regular, hard pulse," above 100 in the minute?—It cannot be.

That the torpor of the bowels was dependent, in a great measure, on affection of the brain, in the above case, we are inclined to believe; but this affection of the head we consider to be just the reverse of what Dr. Paris believed it—so far from thinking there was "deficient circulation through the brain," before death, we are fully convinced there was a too active circulation there. How Dr. Paris could expect to find the brain very bloody after what took place in the lungs, we cannot imagine.

In stating and discussing this case, now put on public record and consequently open to critical investigation, we have candidly and unequivocally differed from Dr. Paris, on several important pathological points, and the public will decide who is right and who is wrong. In conclusion, we can safely and conscientiously declare, that we have, in our analysis, been more on the watch for objects to praise than defects to censure—and that we have on all occasions adhered to the precept of the Roman satirist—

> "Quæ laudanda forent, et quæ culpanda, vicissim
> Illa *prius* creta,—*mox* hæc carbone notamus."

II.

Traité Elémentaire de Diagnostic, de Prognostic, d'Indications Therapeutiques; ou Cours de Médicene Clinique. Par M.L. Rostan, Médecin de l'Hospice de la Vieillesse, (femmes) ci-devant Sal Petrière, Professeur de Médecine Clinique, &c. Tome premier.

The work which we now introduce to the notice of our readers embraces one of the most important of medical inquiries—*the*

principles of clinical medicine;—and it involves the discussion of many topics of the very highest interest, especially to the young medical student. We shall, in this Review, follow our author nearly in the course which he has chosen, though we greatly fear we shall not always come to the same conclusions.

The work is divided into two parts:—1. Preliminary observations; 2. The diagnosis. The latter part is subdivided into two chapters—the first relating to symptoms, the second, to symptoms as signs of disease—a sub-division, which is surely an over-refinement, and leads to much repetition; symptoms are always signs, and it is entirely owing to the defective state of our knowledge that we do not always certainly know what is signified by them.

PRELIMINARY OBSERVATIONS.

M. Rostan begins his useful work by the statement and elucidation of what appears to us to be certain self-evident, and we had almost said, undisputed propositions. At least we regard them so to be on this side the Channel. It is plain, however, by the tone of our author's publication, that that is by no means the case in the meridian of Paris. These propositions are, 1. That there can only exist, in the animal frame, *organs* and *functions*; 2. That the latter are *effects* of the former; and, 3. That according as, and *only* as, the organs are healthy, or unhealthy, so are the functions. When the organs are healthy, the functions are invariably so too, and together they constitute healthy anatomy and physiology; when the organs are unhealthy, the functions participate with them, and these together constitute morbid anatomy and physiology.

Surely all this is undeniable. What is intended, then, by the division of morbid affections into functional or organic?—or into disorders and diseases? And, is this division founded in nature and useful in practice? There is certainly a vast difference between dyspepsia, gastritis, and scirrhus of the stomach: in the first, no change can generally be detected in the organs on inspection after death—in the second, certain changes in colour, if not in texture, are usually obvious enough—and, in the last, there is altogether a change in substance; in the first, even, it has been observed that the disorder has sometimes led to organic disease, although it must be admitted that it has more frequently subsisted for many years, and even for a long life, without any tendency, even, to superinduce disorganization. It is, therefore, quite obvious that there is a vast difference in

these cases; it is equally obvious that it must be of vast importance to ascertain this difference in actual practice; and yet it must, we think, be admitted to be a misuse of terms to denominate the case of dyspepsia, functional, as distinguished from that of the other two morbid affections, as organic; for in both there is an affection of the organ as the foundation and substratum of that of the function. But, we would ask, is there the same or any objection to the terms disorder and disease, as applied, the former to cases in which no change can be observed on dissection, the latter to such cases as consist in an obvious change of texture? We think not. For these terms do, each, express changes of the organ, although changes which are very different, in point both of fact and importance. We would call that, disorder or derangement, which cannot be seen on examination of the organ after death, and that, disease, which is obvious under the scalpel of the anatomist; and it would, of course, be an important object in the *history* carefully to trace the transitions from one state to the other. We do not know whether these plain, but surely practical remarks, may satisfy the philosophical turn of mind of M. Rostan, who has taken great, and, we think, unnecessary pains, to explode all idea of diseases of function, independent of diseases of the organ; such ideas, we think, never prevailed amongst us; and for the distinction of disorder and of disease, it is of too useful a character, as well as too substantially correct, to be abandoned. We must, therefore, continue to use the term disorder, for the periphrase—"organic affection not detectible on examination," and the term disease for "organic affection obvious on inspection"—considering both terms, however, as expressing changes of the *organ*, and coincident changes of its *function*.

We have, perhaps, bestowed too much pains upon this discussion, but it is plain that M. Rostan regards the point as one of mighty importance; nay, he goes so far as to assert, that the future progress of medical science depends upon our having just views of this question; but the kernel of all his remarks is this, that the more we search for disease, in cases in which it has been thought there was none to be detected, the more likely we shall be to discover it,—and that we should always *suspect* it, and so *look for* it, and especially in those cases which have hitherto been denominated *nervous*, and, as it appears, in Paris, *vital*. M. Rostan, in his ardour to explain that there cannot exist either function or disordered function independently of organ, proposes (p. 7) to say that there is no such thing as respiration or digestion, but rather "respiring

organs," " digesting organs ;" and of course, and for the same reason, there can be no disorder, but disordered organs, no disease, no death, but diseased and dying or dead organs, &c.! all which is perfectly undeniable; and yet we greatly fear we shall never be able to induce our brethren here to speak with such becoming propriety.

It is quite obvious, from the style of M. Rostan's performance, that it is controversial. The first part is, for this very reason, rather tedious to us who are strangers to the author's antagonists; we shall, however, state briefly the five "*propositions*" which it is intended to establish. The first is, that there are, in the animal economy, only organs, and organs in exercise—or functions; the second, that each organ may be affected primarily and independently; the third, that our fluids are also susceptible of primary morbid change; the fourth, that it is impossible that there should be only one kind of morbid affection; the fifth that the strength varies in each individual, and, consequently, that the treatment must be very various, and sometimes contrary. These propositions require no proof amongst us, and it is surely very deplorable that they should amongst our enlightened neighbours; we had almost thought that M. Rostan was in joke, but he appears to be quite serious, and he is very animated in his observations on these different points.

M. Rostan proceeds to state that it is by *observation* alone that the truth of these facts is demonstrated, and that it is by means of the *senses* alone that we observe, and obtain all our information. These subjects have already been fully noticed by us in a former Number,* to which we refer our readers. We proceed, therefore, to the discussion of another question agitated by M. Rostan;—*what is the most important kind of knowledge for the physician?* Is it the knowledge of the causes of disease? of the intimate nature of disease? of the symptoms? No. None of these—but, according to M. Rostan, that of the morbid anatomy. Now, we have several times lately given our opinion on this subject; and we have surely never attempted to depreciate the true and just value of morbid anatomy; but we are far, very far, from thinking that an undivided, or even unequal, attention should be paid to this study. We would say, in a few words, that the symptoms and the morbid anatomy should *together* engage the chief attention of the physician;—for without the symptoms as the signs of the disease, of what utility would be the most intimate knowledge of diseased structure? and without an accurate knowledge of the morbid

* Vol. 2, No. for April, 1825, p. 415.

anatomy, how can the symptom ever be to the physician the *sign* of the disease? In this point of view, then, the knowledge of the symptoms and of the morbid anatomy, is of *equal* necessity and importance. But the symptoms teach us much more; they teach us, 1. The degree of strength of the patient, and, 2. the condition of the constitution—two points of indispensable importance to the treatment. For it is utterly impossible to prescribe for a disease merely, supposing it even most accurately known; we must first inquire most carefully into those other circumstances of the patient which we have just mentioned. It has been well remarked that all works on agriculture should be re-written, stating the nature of the *soil*; and that all works on physic should be re-written, noticing the state of the strength and of the constitution; and it may even be a question, whether we might not as safely be ignorant of the disease itself as of these other important points.

M. Rostan endeavours to prove that the study of morbid anatomy is the most useful, because the works on this subject are the most permanent in their value and fame, and instances the works of Bonnet and Morgagni, of Senac, Corvisart, Bayle, &c. But this is a very ambiguous mode of reasoning. Does M. Rostan mean by the word useful—useful in actual practice and to the patient, or to the reputation of a medical author? If the latter, we believe we should quite agree with him, and this for obvious reasons. First, because the observation and the description of the morbid anatomy are far easier than those of the objects of symptomatology; secondly, because the changes in morbid structure, are of a more solid and tangible, and lasting, and far less variable character, than those of the functions constituting the signs of disease; and it is, therefore, far easier to write accurately upon them. Yet the difficulty of a study by no means lessens its *utility*; and he who, out of the more transitory and chaotic mass, can collect substantial observations, has even the greater merit; and it may, with great truth, be asserted, that the work of Sydenham has had a more important and useful influence on the practice of physic than even that of Morgagni.

The study of the symptoms is essential, then, to make even our knowledge of the morbid anatomy available and useful—to indicate the degree of strength of the patient, and to ascertain other peculiarities of the individual constitution; it is further of *sole* efficacy in that great number of cases in which the anatomist has hitherto traced no organic changes. It is also a study of greater difficulty than that of morbid anatomy.

Our younger readers will not now, therefore, hesitate to determine which study should claim their most special regard; if their object be to become authors, and to acquire great fame merely, we think they had better, for these purposes, study the morbid anatomy;—but if they wish to become useful to their patients, they will do well to bestow their chief attention upon the symptoms—not an undivided or exclusive attention, however; but carefully adding to this study that, also, of the morbid anatomy.

The question we are now discussing—what is the most important study for the physician?—involves many other considerations, besides those which we have hitherto touched upon. There is another inquiry, distinct from that into the symptoms and the morbid anatomy, which has hitherto been too much neglected; it is that which relates to the *history*. This inquiry involves the consideration of the following questions;—1. Hereditary predisposition; 2. Previous diseases; 3. Preceding attacks of the same disease, or of disease of the same cavity or organ; 4. The course of the disease especially the *first* or *earliest* effects of *insidious*, and the *premonitory* signs of *impending* diseases,—the *extension*, or the *transition*, of disease from one organ to another, or from one cavity to another,—the *superinduction* or the *supervention* of other diseases, or of diseases of other parts,—the *changes* in the character of the existing disease, &c.; 5. The effects of remedies; and, 6. Of external circumstances, as exertion, emotion, diet, &c. M. Bayle, of whose character M. Laennec has drawn so beautiful a portrait,* was so impressed with the importance of an accurate attention to these points, that he was in the habit of taking a faithful account of the disorder in every case, and of leaving it with the patient when his attendance was concluded, for the benefit of any future medical adviser. Certainly, if this plan were rightly pursued, there might be some foundation for that boasting which we sometimes meet with in the older medical attendants of a family, and which has gone by the phrase of "knowing the constitution"—a phrase, of the frequent abuse of which to sinister ends, we cannot here treat more particularly.

It is, then, from an accurate inquiry into the history, and from an accurate observation of the symptoms, that we are led to ascertain the disease, the course, and the actual state, of that disease, and the precise condition of the patient, that is, of the constitutional powers and actions; on this knowledge depends our treatment entirely; it involves that of the morbid

* Vol. ii. p. 109.

anatomy; but it applies, also, to innumerable cases in which no morbid changes have hitherto been detected on dissection.

Now, then, let us endeavour to appoint to the morbid anatomy its due place in a course of medical study. It is surely quite indispensable; it has thrown the greatest light upon medical science; it constitutes the most permanent and substantial part of medical writings. Morbid changes of structure should be suspected, and looked for, in every case, and when no such change can be discovered on dissection, it should be frankly confessed that they have eluded our modes and means of observation,—not that they do not exist. The investigation should be prosecuted with ardour, and opens the most certain way to fame. But let it be repeated, that not the most accurate and minute knowledge of morbid structure can avail the physician in curing or relieving the patient, unless he can ascertain it in the *living* person as well as in the dead; so that its actual utility is just commensurate with our knowledge of the history and symptoms, or of the signs by which we are led to ascertain its existence.

It will be observed, that, in the preceding observations, we have not said one word which should lead our readers to deny the utility of the study of morbid anatomy; our object has been to assign to it its due place in medical studies. M. Rostan has, however, collected some observations supposed to be made by such as feel disposed to depreciate morbid anatomy as a study, not in the comparison with other studies, but in itself. These objections are the following:—

1. "Many changes which did not exist during life, may supervene after death.

2. "Many others, on the contrary, which existed during life, may disappear—as the redness of erysipelas.

3. "It is a folly, as the ancients, and Celsus in particular, observe, to suppose that the appearances after death are the same as during life: and—

4. "The fluids may become morbidly affected, and the changes in them cannot be supposed to be detectible on dissection."

These are certainly important observations, and ever to be borne in mind in our investigations into the morbid anatomy, but are surely no objection to the study itself, nor do they in the least degree lessen its value. They lead us to make a remark, however, which is of the utmost importance; that it is absolutely necessary to be intimately acquainted with the *healthy* appearance of each of the organs constituting the animal frame, as examined under different circumstances, at

different periods after dissolution, &c. before we can be prepared to ascertain the morbid anatomy. There are appearances which our neighbours have distinguished and denominated "cadaveriques;" the work of M. Laennec abounds in observations upon them; but he would do a most essential and lasting service to the science of medicine who would treat the matter systematically and fully. If any of our readers be so minded, we would recommend to their perusal two excellent papers, one by Dr. Yelloley, the other by Dr. Davy, in the Medico-Chirurgical Transactions, and they will not find the following observations altogether useless.

1. How difficult is it to discern what is, and what is not, morbid, in the degree of *fulness of the vessels?* We have only to open the head and examine the substance of the brain, or the chest, and inspect the state of the lungs, or even to read many published accounts of such examinations, fully to comprehend the difficulty of this question. The most experienced eye alone, can distinguish the apparently, from the really, morbid states of fulness, and we may even suspect the truth of all such conclusions as have been drawn from those appearances alone.

2. How important, yet how difficult, is the same question in regard to *colour*. The nature of this difficulty will be best apprehended on opening the abdomen, and examining the different hues observed in the course of the stomach and intestines. How often has inflammation and even gangrene been pronounced to have existed, when there had been nothing less.

3. How difficult, too, is the question respecting the *size* of certain organs, as of the heart or of the liver. We must be well acquainted, indeed, with the natural appearances and differences, to be enabled to offer a correct opinion upon the question, whether either of these organs be larger or smaller than natural, when the alteration is only slight.

These examples will suffice to draw the attention of our readers to the inquiry proposed, and to explain our meaning. To the investigation of these and similar topics, must be added that of those pointed out by M. Rostan, and then, and then only, shall we be prepared to ascertain and distinguish the really morbid changes which may be presented to us.

Having thus accurately distinguished between the healthy and diseased structures, there are other points in the farther inquiry into the diseased, of the greatest importance, but which we can only touch upon cursorily at this time. In the really morbid appearances observed, it is essential to ascertain at what period of the patient's life or sickness they took place. Whether they belong to previous disease or diseases,—to the

earlier or later stages of the fatal disease,—whether they co-exist accidentally, or have occurred as causes and effects of each other,—and especially whether they have been induced in the last stage of all, or have been the effect of the state of sinking, &c. &c. The last point is of the utmost importance as well as novelty. It is noticed more than once in M. Laennec's immortal work, but altogether demands a renewed investigation.

The next subject brought under our review by M. Rostan, is that of the *mental qualifications* necessary to the study of physic. These he enumerates thus: first, *attention;* in the second place, *an ardent and pure love of truth;* in the third place, *a state of moderate scepticism*, equally avoiding prejudice on the one hand, and incredulity on the other.

The attention must not only be great, but it must be kept up, and that even after we have come to our conclusions respecting the nature of the case. For who is the physician who has never had occasion to correct and change his opinion during his continued attendance on a patient? and how shall he be apt to correct his opinions unless his attention be continually kept alive to fresh or varied appearances in the course of the disease? And then, admitting our first opinions to be just, how often does the disease itself change both its form and its seat, or become complicated by the superinduction or supervention of others; and how shall these changes be instantly detected except by a strict and sustained attention?

But if the error which results from a defective attention be serious, it is at least pardonable in comparison with that which is the effect of prejudice or of the want of a pure and simple love of truth. Here is scope for discipline of the heart as well as of the head. Our readers remember that when the celebrated Dr. Sangrado was told that all his patients died, and that he must, therefore, alter his system of bleeding and warm water, the doctor replied "impossible, for I have written a book upon it." It is a sad snare to have written a book. It is rarely that men are, like Sydenham, above a prejudice or bias produced by their own writings. But we have already treated of this subject, and will dismiss it by referring to what we have already written.*

A doubting spirit, is also that which keeps the attention alive. He who knows little, doubts little, and remains perhaps in error; whilst he who has learnt to doubt, continues to observe, and corrects or confirms his own opinions by a well

* The Number for April, 1825, p. 419.

sustained attention and observation; his ultimate opinions being thus formed, are well formed, and stable in proportion.

The next subject treated of by M. Rostan, are the *therapeutic indications*. Of these we need not treat at large. Our author's remarks contain little or no novelty and scarcely admit of animadversion. In stating the diagnosis to be the *basis* of the treatment, M. Rostan concurs with the author of the only treatise on this subject in the English language, and. we believe, with *every* intelligent practitioner on this island. The sources of the therapeutic indications are thus enumerated:

" 1. The causes of the disease.
2. The nature of the disease.
3. The course and duration of the disease.
4. The strength of the patient.
5. The age of the patient.
6. The constitution of the patient.
7. The sex, and,
8. The habits, and idiosyncrasies.

These subjects are treated of very cursorily, and are too important to be so treated of. The same may be said of a little section on the "means we possess to fulfil these indications."

We shall next, therefore, proceed to notice the second part of M. Rostan's work—that to which the part already noticed is, indeed, merely introductory. But as the character of this second part is altogether more *practical* than the first, we shall reserve it for a second article in our next; especially as we wish to condense upon our pages, all the useful observations it contains. In this part of our review we have enlarged freely upon our author's observations; in the next we purpose to adopt a different course:—viz. to compare M. Rostan's account of the symptomatology with that contained in the only work on this subject in our language;—we mean the Essay on the Symptoms and History of Diseases, by Dr. Marshall Hall,—to transfer to our pages such observations as appear to form useful additions to those contained in Dr. Hall's work, and to intersperse such remarks as may tend, we think, to the advancement of this important department of medical science.

III.

Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. II. with Plates.

(Continued from No. X. p. 408.)

Art. I.

A Case of Purpura Hæmorrhagica terminating fatally, with the Appearances on Dissection. By P. Fairbairn, M.D.

There are few diseases which occasion more perplexity and doubt in the mind of the practitioner than the one in question. He sees blood oozing from the mouth and other openings, while dark or livid spots are scattered over the surface, apparently indicating a broken down state of the vital fluid. Yet he is told by great authority, that the hæmorrhagic effort is of an active kind, and requiring depletion—while others, of no mean note, view the disease as one exemplifying a high degree of asthenia, and demanding the most effective tonics. It, therefore, requires some nerve, or some insensibility of nerve, to go coolly to work in such cases. We want farther evidence indeed, and a greater number of facts, to settle the pathology and treatment of purpura hæmorrhagica.

Case. On the 18th November, 1823, Dr. Fairbairn was called to a man, aged 24, of regular habits and robust constitution, but subject to vicissitudes of temperature, in his trade of book-binding. He complained of deep-seated pain in the left breast, aggravated by deep inspiration or coughing—breathing laborious, with sense of suffocation on attempt to stand—countenance flushed and anxious—copious discharge of dark venous blood from the mouth, apparently oozing from its mucous membrane, and partly expectorated from the lungs—numerous petechiæ and vibices on the arms, neck, and trunk, varying in magnitude from a mere point to the size of a sixpence. There were none on the hands or face. On the chest and leg, of one side, there were two large livid blotches resembling ecchymosis. These petechial spots were of various colours—bright red—purple—yellow, but not elevated. In the mouth, similar spots occupied the gums, cheeks, tongue, and fauces. The tongue was covered with a dark fur—urine of a grumous appearance—pulse 110, firm and sharp—some

heat of surface—bowels loose. Reports that he experienced depression of spirits, lassitude in the limbs, pains in the head and chest, tickling cough, chilliness and flushes for several weeks previously. On the 16th November, the petechiæ made their appearance—on the 18th, he was seized with difficulty of breathing and fixed pain in the side. Dr. F. bled him to 26 ounces, which produced a disposition to syncope, and was followed by considerable relief. Blood not buffy—coagulum soft and tremulous. Fifteen drops of diluted sulphuric acid to be taken frequently in cold water. He had a restless night, from turbulent dreams; but the pectoral symptoms were relieved next day. Blood still continued to ooze from the mouth—and febrile symptoms were present. Eighteen ounces of blood from the same arm, and exhibited the same appearances. A dose of salts, which produced a fetid, loose stool. The next day he was again bled to 20 ounces, having shown symptoms of determination of blood to the head. Syncope took place, and he expired on the morning of the 21st, the sixth day after the appearance of the petechiæ.

Dissection. The petechiæ appeared nearly the same as before death. The cellular and muscular textures on the neck and chest were injected with blood, and emphysematous. The thorax contained a pound of fluid resembling blood, of a dark colour and viscid consistence. The lungs contained a bloody serous fluid, and were less crepitous than natural. The bronchial tubes and trachea were filled with a similar fluid, and, beneath the internal coat of the latter, there was a slight effusion of dark venous blood. Dark blood was also effused into the anterior mediastinum, and between the layers of the pericardium. The heart was pale and flaccid; and under its internal membrane, there was a similar effusion as in the trachea, giving a deep livid colour to the surface of the heart. The inside of the aorta presented an increased tint of redness, without evident thickening or change of texture. The floating viscera of the abdomen were of a dark leaden colour—there were a few petechiæ on the intestines—and the pyloric orifice of the stomach was studded with them. The liver was paler than natural, and somewhat softened—the spleen, when torn, effused a quantity of dark-coloured matter of a semi-fluid consistence. There were two large ecchymoses under the scalp—the brain and its membranes being healthy.

Remarks. This case is remarkable, as occurring in a stout muscular young man, and also on this account, that the shooting pains in different parts of the body, the general vascular

excitement, the congestion and extravasation of blood into the mediastinum and other parts, affords strong grounds, in Dr. F.'s opinion, for considering the foregoing case of purpura as bearing a striking resemblance to active hæmorrhage, warranting the depletive measures recommended by the late Dr. Parry. It is questionable, as our author candidly observes, whether the depleting system was not carried too far in this instance. But it is difficult to decide this point in the present state of our knowledge.

Art. II.

Observations on the Physiological Principle of Sympathy, chiefly in reference to the peculiar Doctrines of Mr. Charles Bell. By W. P. Alison, M.D. F.R.S. E. Secretary to the Society and Joint-Professor of the Theory of Medicine in the University of Edinburgh.—(Transactions of the Medico-Chirurgical Society of Edinburgh, Vol. II.)

The question of the sympathy of the nerves has been so involved in obscurity from the want of *data* for discussion, that it has been almost abandoned by modern physiologists. Indeed it is obvious that, until we have attained a knowledge of the functions of the nerves, on which sympathy depends, little progress can be made in the investigation. During the times of Whytt, Haller, and Munro, this subject engaged the attention of a numerous class of writers, and was the source of many an ingenious and many an incomprehensible theory. In reviewing these theories we observe that, although there was much abstruse and subtle reasoning employed in their support, yet the anatomy of the nervous system, as it was then taught, could never be brought to lend them much assistance. By some, the theories were retained, although the facts of anatomy were altogether neglected; and if there were others who sought to strengthen their views by reference to anatomy, they were accused of perverting it to suit their purposes. "Solent qui ita sentiunt, varias nervorum connexiones, maximè tum paris vagi, tum intercostalis nervi, quod latissimè pateant, studiose inquirere et ambitiose exaggerare, ut tum multis et tam variis sympathiis explicandis possint accommodari: sed operam manifeste ludunt et suo abutuntur otio."—*Astruc.*

When we mention the names of Dr. Whytt, Dr. Munro, and Haller, as having been engaged on this subject, it is sufficient to show that the "Principle of Sympathy" was not neglected. Yet these celebrated men have left it exceedingly vague and

uncertain, principally because the consistency of their doctrines with the anatomy of the nervous system could not be proved: for no "Physiological Principle of Sympathy" can be satisfactory, unless it admits of an explanation on the grounds of the anatomy of the nerves. When we reflect on the imperfect knowledge which these authors possessed concerning the functions of the nerves, we cannot wonder at their having relinquished all hopes of reconciling their views with the facts of anatomy. Since their time, however, great improvements have been made in the knowledge of the system of the nerves: this division of anatomy has been converted from a state of intricacy and uncertainty into an open and fair field for legitimate inquiry.

And this leads us to remark how natural it was that Dr. Alison, while studying the "Physiological Principle of Sympathy," should refer to the recent discoveries of the functions of the nerves by Charles Bell; but we are astonished that he seems to have derived so little advantage from them. Mr. Bell's system of the nerves perfectly coincides with the opinions concerning sympathy which Dr. Alison supports in the above paper, as we shall presently be able to show; yet instead of perceiving this, he has perversely thrown aside anatomy, and, together with it, the only confirmation of his views. "The researches of Dr. Whytt and Dr. Munro on this subject were, as I think, quite successful in establishing two points in regard to such phenomena; first, that they cannot be explained by the connexions of the nerves of the sympathising parts; and, secondly, that they do not indicate any necessary consent or sympathy between the individual parts of the body; but, in general, are simply the effects of certain mental sensations." P. 170.

It may be seen from this quotation, that Dr. Alison does not seek for an anatomical explanation of the physiological principle of sympathy: indeed, he is so strongly convinced that sympathetic actions cannot be explained by the connexions of the nerves, that he has made this the grounds of an attempt to invalidate Mr. Bell's classification of the nerves.

In the investigation of this subject, the author of this paper has adopted metaphysical reasoning in opposition to that which is grounded on anatomy; and he prefaces his observations by stating this opinion. "It is absolutely incumbent on every one who studies the physiology of the nervous system in the human body, to consider carefully the laws of the mental phenomena as made known to us by our own consciousness, and as generalized by the writings of metaphysicians." There is

no one who can deny the justness of this sentiment; yet we think that, in studying the physiological question which he has chosen, there ought to be combined, likewise, proofs from anatomy, in order that sober and correct views might be attained.

The object of the first part of Dr. Alison's paper is to correct the idea of sympathy, implying a *necessary consent of the individual parts of the body with each other.* "If we take a systematic view of the different effects of mental acts on the bodily organs—not only of those which result from strictly voluntary acts, but of those, also, which result from instinctive efforts, and from sensations and emotions of the mind, we shall give, under these different heads, (but especially under that of the effects of sensations on the body,) what I believe to be a true account of most of the phenomena generally considered as indicating such necessary consent." P. 173.

It is his opinion, that sympathetic actions do not depend on any uniform consent of individual parts with one another, necessarily resulting from connexions among the nerves, but simply on the excitation of particular sensations; and he proceeds to illustrate his views by arranging the different kinds of sympathetic actions under the following heads:—1. The muscular actions, from irritation of distant parts, which are called sympathetic, appear to co-exist in the body only with the indications of sensation. 2. The attention of the mind cannot be fixed at one and the same time on two distinct objects: this is a proof that a mental sensation must necessarily intervene between the irritation of one part of the body, and the excitation of such movements as we have considered, in another. 3. In several instances of sympathetic actions, the sensations which are regarded as their cause may be excited by irritation of different parts of the body; proving that what is needful to the excitation of actions of this kind is not the irritation of particular parts, but the excitation of particular sensations. 4. Different irritations of the same parts do not excite the same actions if they excite different sensations.

Each of these statements is illustrated by numerous instances of peculiar sympathetic actions: and, after they have been duly discussed, the author proceeds to criticise Mr. Bell's classification of the nerves. "Mr. Bell appears, indeed, to consider his respiratory nerves as acting always under mental feelings, and so far his opinions agree with those of Dr. Whytt. But I think he has not observed, that several of the statements by which Drs. Whytt and Munro established the dependence of sympathetic actions on sensation, and their independence of connexions of nerves in their *course*, are equally conclusive

against that dependence of certain sympathetic actions on the connexions of nerves *at their roots*; for which he himself contends." p. 191. In these sentiments we find an explanation of the reason why he refuses to adopt Mr. Bell's views: he has perceived that the class of respiratory nerves is made to account for several sympathetic actions, and being a disciple of Drs. Whytt and Munro, and convinced by them that the principle of sympathetic actions cannot be explained by the connexion of nerves, he has concluded that Mr. Bell's views are incompatible with their doctrine, and, therefore, that his explanation of the functions of the nerves must be unfounded. We shall presently show that their views on the general principle are so far from being inconsistent with each other, that, if Dr. Alison had attended more carefully to Mr. Bell's classification of the nerves, he might have found that the facts of anatomy agree perfectly with the doctrine of Dr. Whytt. We must proceed, however, to notice the misconceptions on the part of Dr. Alison, which have been the cause of his opposition. We find that he details at great length, his objections to the classification of every individual nerve called respiratory. But it is to be remarked, that he attends almost entirely to the connexions which these nerves have at their roots, as noticed by Mr. Bell, and has neglected the great and important peculiarities to be observed in their distribution through the body. He says, in the end, at p. 222, that he has adduced sufficient statements to entitle him to affirm "that no bond of connexion has been ascertained at the roots of the nerves which Mr. Bell has designated as respiratory, which does not extend to other nerves not included, or not possessing any claim to be included in that system." He leads us to conceive that Mr. Bell founds his opinions of the functions of the nerves on the circumstance of their arising in a particular manner from certain columns of the spinal marrow and brain. Mr. Bell, on the contrary, was led to make his discoveries by attending to the parts of the body to which the nerves went: he observed that the class of nerves called respiratory took their course to those parts of the body which are, in function, connected with the organ of respiration: and that they were distributed there, in addition to another class of nerves, the properties of which he had discovered. He directed his attention to the phenomena exhibited in the apparatus for breathing: he ascertained that the endowments of the parts which constitute this organ are complicated in the same proportion as their nerves are numerous: he found that the excessive intricacy in the nerves of the face, jaws, throat, and breast, was on account of the individual nerves

being agents of distinct powers—for combining the muscles in subserviency to different functions; and it was by carefully attending to each nerve, and viewing the actions of the muscles to which it is distributed, that he discovered its use, and was enabled to class it separately from the others. His views of the properties of the different *columns* were obviously deduced from knowing the functions of all the nerves which arise from them.

Let us here take an example, to prove that anatomy points out to us a difference between the nerves bestowing muscular power. For this purpose, let us select the portio dura of the seventh pair, to determine what is its function. The fifth pair of nerves supplies the same parts as the portio dura: the question, therefore, arises, what are the distinct offices of each? We know that the former is a compound nerve, resembling the spinal nerves, arising by two roots: the nerves proceeding from one root bestow sensibility to the head, while the other bestows power to the muscles of the jaw. The anatomical character of the fifth pair is, that it is distributed to almost every part of the head. It can even be traced most distinctly sending its branches to the muscles of the face. We have said that the fifth pair is a muscular nerve; yet these branches, which it sends into the muscles of the face, are not the motor nerves of the face: they possess no direct power of exciting these muscles to contraction. It would appear, from this alone, that the muscles of the face are of a class which require their functions to be bestowed by a nerve different from a common one. This leads us to observe what are the distinctions between the muscles of the jaws and those of the face, to ascertain whether their functions be different. The muscles of the face are subject to changes depending on the quiet or excited condition of the apparatus of respiration. Involuntary actions in the muscles of the eyelids, of the nostrils, and cheeks, are the consequences of the respiratory organs being violently roused. These muscles are much affected in certain passions of the mind, when we observe the whole respiratory organ moved. There is another peculiarity regarding these muscles: in certain conditions they are placed beyond the influence of the will, as in continued breathing, yet they are also subject to the will, as we observe in speech; and we must not omit to notice that the involuntary actions necessary for breathing proceed, at the same time that these muscles are employed, under the direction of the will, for other purposes. All these circumstances prove that the muscles of the face are endowed with properties which require a nerve different from a common nerve. Accordingly, we find that the

portio dura, the respiratory nerve of the face, comes from a source in the brain different from that of the fifth pair; that, at its origin, it is close to other nerves, which may be proved to possess similar endowments with it; and that it takes a course different from the fifth pair, for the apparent purpose of combining its branches with the respiratory nerves. Are these not fair grounds for arranging this nerve (the portio dura) among a distinct class from the symmetrical nerves, and giving it a name corresponding to its character? Another conclusion to which Dr. Alison arrives exhibits to us the drift of his previous reasoning. "The nerves which Mr. Bell includes in this system (viz. the respiratory) are easily excited *by irritations not acting on any of their own number.*"

We conceive that *irritations* are conveyed by nerves of sensation, and not by motor nerves. The principal cause of his objecting to the system of the respiratory nerves, is founded on his not having separated in his mind the nerves of sensation from the nerves which command muscular action. Thus, because tickling the nostril excites the action of the muscles connected with respiration, he wonders why the branch of the fifth pair, within the nostril, is not included among the respiratory nerves. (P. 200.) The nerves of respiration are explained to be those which are distributed on a peculiar class of muscles, to control the actions connected with breathing. The nerve of the nose possesses an influence over the respiratory actions only in an indirect manner, by its connexion with the sensorium. If we desire to know which nerves produce the phenomena, we must look to the muscles which are called into action: these indicate which nerves were excited, because we know the nerves that go to supply these muscles. We should never think of looking among the nerves of *sensation*, to discover those destined to effect any *motion*. Here, then, appears to be the principal error of Dr. Alison: he has looked for respiratory nerves among nerves of sensation, when he might have known that the nerves of sensation form a distinct class in Mr. Bell's system; and he might have found that the fifth pair is included in that class. The peculiarity of the respiratory nerves consists in their being motor nerves, which supply the muscles employed in the actions of breathing, bestowing upon these muscles those peculiarities which distinguish them from all others, and combining them to act with one simultaneous effort.

It is necessary for us to remember that the respiratory nerves, in their course, are connected with nerves belonging to the other classes; so that the parts to which they go may appear to possess, through them, more endowments than one. If we

find an organ, which is supplied by respiratory nerves, possessed with a peculiar sensibility, as the epiglottis, we are to ascribe the sensibility to the sensitive part of the spinal nerve, with which the respiratory nerve is bound up in one sheath; but the power of drawing the small muscles around the epiglottis into action, belongs to the respiratory nerve.

It is rather an interesting circumstance, that about the same time that Dr. Alison's essay appeared, Mr. Bell's paper on the nervous circle was published,* which contains opinions that coincide with those of Dr. Alison concerning the principle of sympathy. The views of Mr. Bell have been deduced altogether from anatomy, while pursuing his investigations into the functions of the nerves of sensation and muscular motion. But we have seen that Dr. Alison has totally rejected anatomy: and, on metaphysical grounds, has endeavoured to prove that the "peculiar doctrines" of Mr. Bell are incompatible with the "physiological principle of sympathy." We introduce the following quotation from the paper on the nervous circle to exhibit the author's views. It is his object to prove that, between the muscles and the brain, there is a circle of nerves: that one nerve gives the sense of the condition of the muscle to the brain: another conveys the influence from the brain to the muscle.

"For example; a patient of mine having, by a tumour pressing on the nerves of the orbit, lost the sensibility of the eye and eye-lids, she retained the motion of the eye-lids by the portio dura coming round externally, and escaping the pressure which injured the other nerves. Here the course of sensibility backwards to the brain was cut off, while the course of volition was free: she could not tell whether the eye-lid was open or shut, but, being asked to shut the eye which was already closed, she acted with the orbicular muscle, and puckered the eye-lids. When I touched the eye there was no winking, because the sensitive fifth pair had lost its power, although she could command the motion by voluntary exertion.

"In another instance, when the eye was insensible, touching the eye gave rise to a blush of redness and to inflammation, because the *part* was excited, but the muscles were not called into action: the relations which connect the sensibilities of the eye with the motions of the eye and eye-lid, are established in the roots of the fifth, and the seventh in the brain: the loss of function of the fifth nerve, therefore, interrupted the circle. Here, too, the motor nerve of the eye-lid was perfect, and the eye-lid readily acted under the influence of the will; but when the eye-lid was touched or pricked, it communicated no sensation. Is this insensibility of a motor nerve owing to the course of its influence being from the brain, and not

* In the Philosophical Transactions, 1826.

towards it? When the nostril had lost its sensibility from an affection of the fifth pair, we could not excite sneezing: when the tongue and cheek had lost sensibility, the morsel was permitted to remain between the tongue and the cheek until it was offensive, although the motions both of the tongue and of the cheek were perfect. All these phenomena correspond with the experiments on animals.

"Now it appears that the muscle has a nerve in addition to the motor nerve, which being necessary to its perfect function, equally deserves the name of muscular. This nerve has no direct power over the muscle, but circuitously through the brain, and by exciting sensation it may become a cause of action.

"Between the brain and the muscles there is a circle of nerves: one nerve conveys the influence from the brain to the muscle; another gives the sense of the condition of the muscle to the brain. If the circle be broken by the division of the motor nerve, motion ceases: if it be broken by the division of the other nerve, there is no longer the sense of the condition of the muscle, and therefore no regulation of its activity."—9.

Thus we observe that both gentlemen agree about the general principle—that a sensation conveyed to the mind, or the sensorium, precedes the action of a muscle: but there is an essential difference in the mode by which they arrive at this conclusion: one rejects anatomy altogether, while the other grounds his reasoning wholly upon anatomy, and is confined solely to the proofs which he derives from that source. In the paper alluded to, Mr. Bell has followed out this principle only so far as to show the connexion of the nerves of sensation with the muscles of voluntary action. Yet there is no reason assigned for confining the connexion to the voluntary muscles: on the contrary, the illustrations which we have quoted prove that the same principle applies equally to those which are involuntary. The nerve to which our attention is most frequently directed, is the portio dura, the motor nerve of the muscles of the face, and we know that this, at certain times, is under the control of the will, but most frequently is independent of it.

It is very remarkable, that, although Dr. Alison has stated his conviction, that sympathetic actions depend upon sensation, yet he has omitted to consider the nature and peculiarities of different sensations. Having arrived at the conclusion that there is a previous sensation of the mind, he conceives that he has attained the whole physiological truth concerning the principle of sympathy: and he has, perhaps, advanced so far as metaphysical research allowed. But it is to be considered,—1st. That sensibilities are infinitely varied over the whole body: 2ndly. That each kind of sensibility is attended with its appropriate sympathetic effects: and, 3dly

That the nerves which convey sensation to the sensorium form a distinct class.

1. The nerves of sensation are distributed, as we well know, over the whole body: their most striking peculiarity is, that the sensibilities of different parts which are conveyed to the sensorium are infinitely varied. It was long a subject of controversy among physiologists whether certain structures in the body possess sensibility or not. But during the course of their inquiries they forgot to settle this question—whether the parts of the body are indiscriminately endowed with one kind of sensibility, or whether they are possessed, each with a peculiar kind, which is best suited for its protection? Both parties in this discussion appear to have fixed upon the sensibility of the integuments, as their test of sensation; for, whether they experimented upon the heart, lungs, intestines, muscles or tendons, they tried upon all the effects of those substances which we know cause pain when applied to the skin: and they judged of the degree of sensibility in each by the signs of pain which the animals exhibited. There can be no just comparison, however, between the sensibilities of different parts: by a wise provision of Nature, each organ is endowed with that kind of sensibility which is best suited for its protection and its offices in the economy. Thus the common integument is not endowed with a sensibility which resembles that of the surface of the eye; the heart does not possess the same sensibility as the skin, yet it is most acutely sensible to its proper stimulus, —viz. the distention by blood; ligaments, tendons, and cartilages, possess sensibility of a certain kind, yet not such as to cause pain during the natural motions of the body; but, if a joint be stretched beyond its proper degree, its sensibility is immediately excited, as any one must know who has ever sprained his ankle.

More examples might be adduced to prove that sensations are different in the various structures of the body. They are implanted for the purpose of guarding the individual parts; and it is in conformity with this principle that each structure is endowed with an appropriate defence against injury.

2. Sensations, likewise, vary throughout the organs of the body, to produce certain combinations of the muscles.

If we consider the system of the animal body, we shall see many instances of peculiar sensibilities rousing certain muscles into activity. Irritation of the larynx, producing cough, is not a more curious example of a peculiar sensation stimulating an infinite number of large and small muscles, to combine for one purpose, than irritation produced by the pressure of the urine

upon a particular spot of the bladder, in causing some muscles to relax, and others to contract, for the expulsion of the urine. In the muscles of the perineum in the male, we find another example, equally illustrative: for when a different kind of sensation forms the excitement, a different combination of the muscles is produced. The arrangement in the action of the muscles for expelling the fæces forms also another illustration. We might multiply our instances by referring to the intestines, or to the heart, which contract on their contents, each acknowledging the influence of its proper stimulus. No example is more wonderful than that of the sensibility of the uterus, which, having remained inactive during gestation, at length contracts upon the fœtus, when the proper period for its expulsion has arrived.

These examples show that certain sensibilities are implanted in various parts of the body, which, being excited, cause the actions of appropriate muscles. Each of these sensibilities is bestowed for useful purposes in the economy, and it is necessary that we should have a perfect acquaintance with the functions of a part, to understand the character of its proper sensibility.

3. Let us now consider the class of nerves which bestow sensation.

The anatomical fact, in relation to the variety of the sensibilities in the body, is this:—The nerves of sensation, which are those arising from the posterior column of the spinal marrow and the fifth pair, are endowed with sensibilities very differently modified. This may be best illustrated by considering the fifth pair. It is now ascertained that this nerve bestows, first, the degree of sensation which is peculiar to the skin; secondly, that acute sensibility which is possessed by the surface of the eye; thirdly, the sensation peculiar to the internal membrane of the nose; fourthly, that of the sides and tip of the tongue; and, fifthly, that of the muscles. Instances have occurred to prove that any of these sensibilities may be separately lost by affections of the fifth pair.

But, if we inquire further, we shall find that distinct sympathetic actions are dependent on each of these peculiar sensibilities, all of which are roused into activity by this individual nerve. 1. Dashing cold water on the skin of the face or head produces a deep inspiration. 2. The surface of the eye being irritated causes convulsive action of the orbicularis oculi, and draws tears from the lachrymal gland. 3. Tickling the inside of the nose excites the whole apparatus of the respiratory muscles to violent action, to produce sneezing; and in this case we may observe that the actions of a numerous class of muscles

are arranged so as to direct and concentrate the expired air to sweep off the offending cause from the nostril. 4. Sapid bodies being applied to the tongue, cause an increased flow of saliva to the mouth, and draw into action the organs of mastication.

Cases have occurred* which prove that, when the fifth pair is destroyed, the sensibilities being lost, the muscles cease to produce their sympathetic actions; so that the eye may be pressed with the finger without causing winking, and the inside of the nose may be tickled without sneezing. Yet it is observed that patients, in these circumstances, can shut the eyelids, or draw the other muscles of the face into action, by voluntary effort.

It will now, perhaps, be allowed that we have made a considerable step towards connecting anatomy with the "principle of sympathy." We may not, indeed, be able to explain why a certain kind of sensibility produces a certain sympathetic action, for that must depend upon the sensorium; but we have traced the individual nerve which conveys the *sensation* to the brain. Take sneezing, for example: we know that it is the fifth pair which receives the impression, and transmits it to the brain; and we further see that there follows the sensation, so produced, a peculiar excitement, drawing certain muscles into action.

It may be seen that, belonging to respiration, there are certain sensations which excite peculiar sympathetic actions, for the protection of this important function. It has not been asserted that the organs of respiration are peculiar in this respect; indeed, several instances have been stated, which show that the "principle of sympathy" extends over the whole body; and the only *peculiarity* of the respiratory apparatus is, that there exists a class of nerves destined for its functions, distinct from those which supply other parts.

If we attend particularly to the sensibilities which influence the act of respiration, we find that nature has guarded this function with a sensibility which is at all times awake. Under ordinary circumstances it controls the complicated actions of breathing, without the cognizance of the will; and it becomes the object of our perception only when danger to the function is impending. No sooner, however, is this the case, than there is a feeling of anxiety excited, by which the respiratory muscles are sympathetically roused to their utmost exertion. We have frequent opportunities of observing the heaving of the chest and shoulders, the gasping and contractions of the throat, the spasmodic twitchings of the face, the energy that pervades

* See "Exposition of the Nervous System."

the whole frame in those who suffer from obstruction in the windpipe, or die from hæmorrhage. The sensation seems to have its origin in the heart and lungs: being conveyed to the sensorium, it produces those phenomena through the medium of the respiratory nerves.

Through this sensibility, the heart and lungs are so combined, that in all the variations to which they are liable, they are still found to correspond; the accelerated action of the one being directly followed by the excitement of the other. If there be an increased activity in the heart, it is necessary, for the circulation of the blood, that the apparatus moving the lungs should be accelerated in a corresponding degree: and, as the lungs themselves are passive, the influence must be sought for in those muscles which move the chest, the throat, and the nostrils.

"It is this painful sensation that introduces us to 'this breathing world,' which guards the vital functions through life as it draws us into existence. Pain is the agent which most effectually rouses the dormant faculties of both mind and body. While the child slumbers in the womb, it does not live by breathing; it possesses an organ which performs the office of the lungs. In the birth there is a short interval, betwixt the loss of the one organ and the substitution of the other: nor would the breath ever be drawn, or the lungs perform their function but for this painful and irresistible *viscus* which calls the whole corresponding muscles into action. Spasms and contractions are seen to extend over the infant's chest: the features are working, and the muscles of the face agitated, probably for the first time: at last air is admitted into the lungs, a a feeble cry is heard: the air in successive inspirations fully dilates the chest, and the child cries lustily: Now the regular inspiration is established, and the animal machinery subsides into repose."*

——————— "We came crying hither;
"Thou know'st the first time that we smell the air
"We wawle and cry: I will preach to thee, mark
"When we are born, we cry that we are come
"To this great stage of fools."—*Lear.*

In various powerful affections of the mind, there is a sensation referred to the breast, the existence of which is manifested by external signs. *Emotions* have been classed by writers on metaphysics separately from the intellectual states of the mind, on account of the peculiar "vividness of feeling" which belong to the former. It would appear that simple consciousness is too dull a medium for these affections of the mind to be impressed through it alone; and there is added an excitement

* Essays on the Anatomy of Expression by Mr. C. Bell. *Second Edition.*

of the frame, which gives intensity to the feeling. There is a certain turbulence produced in the action of the heart and the dilatation of the chest, and in the contractions of the throat and face, whenever the mind is intensely affected with emotion: thus, for example, in terror, the heart beats with force against the ribs; "there is a spasm on his breast; he cannot breathe freely; the chest is elevated; the muscles of the neck and shoulders are in action; his breathing is short and rapid; there is a gasping and convulsive motion of his lips, a tremor on his hollow cheek, a gulping and catching of his throat." The explanation of these phenomena seems to be this:—the nerves of respiration have been influenced by the condition of the mind to produce these actions: this disturbed state of the heart and respiratory organs is quickly referred to the mind, through that sensibility which we formerly said watches over them: and thus a sensation is produced very nearly resembling that which accompanies threatened suffocation.*

This view of the matter illustrates how corporeal sensations are reflected to the mind, to render us more vividly alive to its emotions; and it also shows that the mind may rouse certain parts of the body into activity, independently of a preceding sensation. In these instances, sensation is not the cause, but the consequence, of the particular actions already produced in the body.

According to Dr. Alison, in adopting Mr. Bell's views,

"We should be obliged to suppose that there are bound up, in what is commonly called the olfactory nerve, one nerve destined for the perception of nauseous smells, and connected with the nerves of the abdominal muscles and diaphragm,"—(and the stomach, &c. if he supposes the act of vomiting;)—"one for the smells that cause faintness, connected with the nerves of the heart; and one for savoury smells, connected with those of the salivary glands. And in the fifth pair of nerves we must suppose that there are bound up, one nerve for the perception of cold applied to the face, and connected with the phrenic and intercostal nerves, by which the act of inspiration is performed, and also with the cutaneous nerves of the whole surface, by which a general constriction of the capillaries is produced; one for the perception of irritations of the nostrils, connected with the phrenic and lower intercostals and lumbar nerves, by which the act of sneezing is performed; and one for the perception of pain in the eyeball, cheeks, or teeth, possessing little or no connexion with the respiratory nerves; and so in other instances."

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* For further illustrations of this subject, the reader is referred to the second edition of Mr. Bell's Essays on the Anatomy of Expression.

If, indeed, we expected to see all obscure phenomena explained,—the effects, for example, of odours giving pleasure or pain, or exciting disgust and nausea; if all those singular nervous affections which are variously exhibited in different individuals, had been attempted to be accounted for, by this new system of the nerves, we should have thought of Mr. Bell's observations as Dr. Alison does. But we have remarked that he most resolutely avoids entering on subjects of this kind, which promise no successful results. He has limited us to the observation of certain facts; he has taught which nerves convey sensation from the part to the sensorium: he has shown by what nerves the impression proceeds from the sensorium to the muscles, combining them into simultaneous operation. But he has not attempted to explain anatomically what connexions are formed betwixt the roots of the sensitive nerves and the muscular nerves, in what is called the sensorium. We have heard Mr. Bell propose it as a question in his Lectures, how far the motions of parts, excited by titillation or irritation, depend upon the connexions of the nerves in the body, and how far on the connexions of the nerves in the brain. For example, when a creature continues to breathe without its head, or when an acephalous fœtus breathes without cerebrum or cerebellum, is there not a connexion between the heart and lungs, and the muscles of respiration, without the intervention of the brain? He illustrated this question by mentioning, on the other hand, the muscles of the eye, acting under the irritation of the eye, as a proof that the brain forms a part of this circle of relations; but the excitement of the heart and the intestines, contracting upon being distended, as other instances of the connexion being formed without the intervention of the brain. Dr. Alison is not aware of the care with which Mr. Bell has impressed in his Lectures that there is a whole system of nerves, of which the powers are not yet ascertained,—those called the *sympathetic*, which may at some future time be made to resolve these difficulties.

It is only by observing the actions of certain parts of the body, and then by referring to the ascertained functions of the nerves which supply these parts, that we can distinguish which nerves were influenced directly by the sensorium in producing these actions: it therefore appears that so long as our acquaintance with the functions of the nerves is imperfect, we shall experience difficulties in accounting for sympathetic actions. Thus, recurring to the instance of irritation of the eye, it was noticed that, besides the spasmodic closing of the eye-lids, there was an increased secretion from the lachrymal gland, and a blush of inflammation on the conjunctiva. It

was not attempted to explain by which nerves the the two latter circumstances were effected; because physiologists have not yet ascertained which nerves proceeding from the brain possess an influence over the secreting and the circulating organs. At present it is only stated by Mr. Bell as a conjecture that the sympathetic nerve controls these functions. But, in explanation of the winking of the eye, we were enabled to say, that the portio dura caused this, because we know it is the function of that nerve to command the muscles of the face.

We, who are pleased with the simplicity and the interest which these views give to the nervous system, may be allowed to express a regret that an ingenious physiologist, conversant with many of those authors who have written on the *theories* of the nerves, should present us their *anatomy* in the same intricacy with which it has been hitherto enveloped.

Let us mark the advantages which the physiology of the nerves has derived from the strict attention which Mr. Bell has paid to the facts of anatomy in his late investigations. First, he has shown the composition of the spinal nerves; that the whole range, arising from the spinal cord, having ganglions upon their roots, are sensible nerves; and that the anterior roots are muscular nerves: Secondly, that the fifth pair in the head, is of the same composition with the nerves of the spine: Thirdly, that as this nerve corresponds in structure with the spinal nerves, so it corresponds in function: Fourthly, he has distinguished the nerves of the face into two classes, and shown that they possess distinct endowments: Fifthly, he has proved that there is a set of nerves exclusively distributed upon the muscles of respiration: Sixthly, he has shown, by comparative anatomy, that these nerves do not exist, except when the act of respiration is to be performed:—These form altogether a most brilliant proof of the importance of anatomical investigation.

We have heard some gentlemen say that these new views are very ingenious and very curious; but they have asked, of what use are they in the practice of medicine and surgery? We may reply, that it is impossible in the early age of any discovery, to foresee how far its influence may extend. But is it nothing to have proved that palsies, which were supposed to depend on the condition of the brain, may arise from local causes, quite independent of that organ, and comparatively of little danger?—To have pointed out to the surgeon the difference between a motor nerve and one of sensation,—and the consequent impropriety of cutting them indiscriminately in cases of tic douloureux, as formerly? Will any surgeon, who

is acquainted with these new views in operating on the face, divide the portio dura, in the expectation that its functions would be performed by branches of the fifth pair? Or would he hazard the destruction of the eye, when operating on tumors of the face, by unnecessarily dividing those branches of the portio dura which pass to the eyelids?

In conclusion we would say, that it is to be regretted, with regard to papers such as we have been endeavouring to criticise, that the general reader, who may not, perhaps, be very intimately acquainted with the subject, is more apt to rely on the character of the writer, than to weigh critically the value of his arguments.

ART. III.

A Case of Empyema, successfully treated by Paracentesis Thoracis. By JAMES PITCAIRN, M.D. Fellow of the Royal College of Surgeons.

Case. Susan Smith, aged 11½ years, had been a healthy child, but had received a fall on her left side, a week before the date of report, by which some of her ribs were supposed to be hurt. On the 19th, (month not stated) there came on acute pain in the side, with fever, cough, and quick breathing. On the 20th, Dr. P. saw her, and found the difficulty of breathing amounting almost to orthopnœa—great pain in the side, tickling cough, hard, full pulse, flushed face. She was bled to 14 ounces, by which she was much relieved. Purgatives and antimonials. The relief was but temporary—the bad symptoms returned—she was again bled to syncope, with immediate benefit. But the inflammatory symptoms often returned, and in spite of anti-phlogistic measures, a deep-seated pain remained in the thorax, with cough and short breathing, aggravated exposure to cold air. The pulse kept uniformly above 110, ranging to 130. In the course of six weeks she was much emaciated—had constant cough, with copious expectoration—frequent diarrhœa, and hectic paroxysms. She was sent into the country, but soon returned unbenefited. Six months after this, Dr. P. was sent for, on account of the extreme urgency of the cough—profuse expectoration—difficulty of breathing—livor of countenance. On examination, the left side of the chest was found to be very much enlarged and prominent in all directions. "The *base* of the heart was found pulsating under the *right* nipple, and its *apex* about 2½ inches more to the right." The action of the organ was regular, but very rapid, 145 in the minute—respiration short, rapid, and difficult.

After some hesitation an operation was consented to; an incision was made between the 5th and 6th ribs, and a flat trochar introduced into the thorax, by which 18 ounces of thick pus were evacuated, with great relief to the breathing and cough. The size of the left side of the chest was thus much diminished, and the pulsation of the heart returned to near its natural situation. On the second and third days, three and a half pounds of pus were withdrawn. During the six following days, there was very little discharge, and, as the breathing was getting more embarrassed, a larger trochar was introduced, and 3½ pounds of pus evacuated. Soon after this the patient was examined by Dr. Cullen, when the following stethoscopic report was made.

"'The whole of the left side of the thorax was greatly enlarged; the intercostal spaces prominent; and the angles of the ribs of greater dimensions than on the opposite side. Percussion, wherever practised, occasioned an uniform dull sound; there was, in fact, a total want of sonorosity. The heart was found pulsating on the right side. The stethoscope could not detect respiration under the clavicle; nor in the præcordial nor lateral regions; and it was heard in the back only, for the space of about an inch and a half, close to, and all along, the vetebral column. Respiration was heard but very feebly in the highest part also of the lung, viz. in the supraclavicular fossa. From these symptoms it was evident, that the lung, pressed by the large quantity of superincumbent fluid, was adhering close to the spine, and to the upper part of the thoracic cavity, and consequently its tissue must have been greatly condensed.'" 233.

We need not pursue the details of the case. The discharge continued for a long time, but ultimately decreased, and finally ceased. In October, 1824, she was seen by our author in the enjoyment of good health. The left side of the chest, formerly much enlarged, is now much contracted, as described and figured by Laennec.

Art. IV.

Case of Carditis, with unusual Symptoms: and the Appearances on Dissection, Death having occurred from another Cause. By John Gairdner, M.D. &c. &c.

Case. Mr. G. aged 28, a medical gentleman, was suddenly seized, on the 16th March, 1823, with a violent palpitation of the heart. An hour had elapsed before Dr. G. arrived, and the action of the organ had in this time greatly subsided, but was still preternaturally violent and rapid, being more than 120 in the minute. Complained of throbbing in his temples,

and head-ache. He was so persuaded that any exertion would renew the attack, that he dared not stir. He had previously experienced a paroxysm, similar in kind, but much less violent in degree. Thirty ounces of blood were immediately abstracted from the arm, which relieved both the throbbing and head-ache. The pulse came down to 108—blood buffy. Saline medicines for the night. 17th. Lay quiet in bed, without palpitation, pulse 100, but quite unable to exert himself—even to change his position. In the evening, another fit of palpitation came on—followed the same course—abated considerably before Dr. G. could arrive—and was succeeded, as before, by distressing sense of throbbing on the temples. Bled again profusely—and again felt relieved—blood buffed. 18th. Had another attack in the evening of this day, though not quite so violent. Another copious bleeding—blood buffed as before—another exemption from palpitation. 19th. Dr. Thomson saw the patient. Leeches to the head. No attack till the evening of the 20th, but it continued twice as long as the former ones. After this he had one or two slighter attacks, which did not require any active measures. His chief distress now proceeded from inability for exertion. When he lay quiet he was easy, and had a soft natural pulse; but if he attempted to raise his body, his pulse instantly became very frequent, and painful sensations plainly evinced the danger of continuing the experiment.

"I had various opportunities afterwards, at different dates, of ascertaining the remarkable effect produced upon his circulation, by changes of posture. I have found him reclining in bed, with his pulse as usual, quite natural; the next moment, after he had slided, in the gentlest manner, over the edge of the bed, so as to rest his feet on the ground, I have found it at 130; again, after he had resumed his original position, I have found it almost immediately down to 80 or 76.

"From this singular state he recovered slowly but progressively. He rode out frequently in a carriage, in which he reclined on a couch; and, by the end of the summer season, he was able to sit upright, and to walk without assistance. But a new train of symptoms now arrested my particular attention. Soon after the commencement of his illness I observed that he coughed occasionally. He had been liable, long before, to protracted colds, for some of which I had prescribed; and they had always yielded to medical treatment. On this occasion his cough was so slight at first as to arrest no particular attention, till it became increased, by an accidental exposure in the month of July. He expectorated a little, and became emaciated. In short, we suspected incipient phthisis; and the result justified our unfavourable anticipations. It is sufficient to say, that appearances became daily less equivocal, and that the case terminated fatally on the 7th November." 241.

On dissection, the lungs were found tuberculated throughout on both sides, the tubercles having passed into suppuration in different places. There was a large abscess in the left lung.

"Near to the apex of the heart we found a layer of dense organized lymph, closely investing a part of the parietes of both ventricles. On attempting to separate a portion of this layer, it was found to be firmly united to the substance of the organ, dipping between its muscular fibres, in the form of dense cellular tissue. It was obviously the result of previous inflammatory action, which had subsisted nearly eight months before, when he had the violent fits of palpitation. There was no adhesion of the heart to the pericardium. The valves, and every other part of the heart, as well as the great arteries, were perfectly healthy." 242.

The above is an interesting case, as showing one of the many anomalous forms, which inflammation in, or contiguous to, the heart, assumes. There can be no doubt that inflammation, long previous to death, was the cause of the appearance on the surface of the heart, and as little doubt can be entertained that the time of its occurrence was that of the distressing phenomena detailed. But such is the versatility of character appertaining to this disease, that it would be very dangerous to consider a similar train of symptoms, in an other patient, as indicating with certainty the same pathological condition of the organ. We have seen instances where inflammation of the surface of the heart went to a far greater extent than in the above case, and where the function was so little disturbed, the while, as to occasion little alarm in the mind of either patient or practitioner, till near the close of the scene. On the other hand, we occasionally witness such commotion of function in the organ of the circulation, from mere nervous sympathy, as alarms the practitioner excessively, and leads to an ultra-depletion that is at least unnecessary, if not injurious. These circumstances borne in mind, will make the practitioner very cautious both in his conclusions and practice, in diseases of the heart. We think that the plan adopted by Dr. Gairdner, in the present instance was very judicious.

Art. V.

Case of Hydrocephalus Chronicus, with some unusual Symptoms and Appearances on Dissection. By Charles Miller, Surgeon. Communicated by Dr. Robertson.

This boy when only eleven months old, was observed by his mother to require his head-dress to be enlarged every three or four weeks, the progressive increase of size continuing regularly

until about two years before his death, when the head measured 31 inches in circumference. There was no farther increase afterwards. His general health, for many years, was good, and his growth natural, except the head. He was latterly emaciated—his features corresponded with the size of the cranium. For the last two years there had been an oozing of water from his nose, to the extent of one or two dram glassfuls daily. This water was clear, and of greater specific gravity than common water. On keeping it became muddy. His memory was particularly correct, and his mental faculties unimpaired.

Dissection. On the removal of the scull-cap an immense rush of water took place, until a wash-hand basin was completely filled, and a pint and a half run over. The basin contained seven pints. A small quantity of pus was found in the posterior lobe of the cerebrum of the left side, and the anterior portion of the medulla spinalis was covered with a layer of purulent matter. The dura mater appeared as if torn in shreds, and that not during dissection, but from previous disease. It was quite separated from the interior of the scull, as far down as the circular incision is usually made, the bone being so far quite denuded, except the attachment along the longitudinal sinus, which was morbidly thickened. The convolutions of the brain were floating like loose intestine, and defied dissection. They were quite a gelatinous mass. The ventricles were like large pouches, and it was remarkable how very firm and cord-like the nerves felt amongst the general mass of devastation. The opening through which the water had distilled into the nostrils was a foramen, an inch above and to the right of the crista galli, having a direct communication with the nasal cavity. There was much bloody serum in the spinal canal. The boy was 16½ years old when he died.

Mr. Miller thinks this case offers proof that mind is much more independent of matter than is supposed by some. If Mr. Miller can show us a case where there is a manifestation of mind without any brain, we will acknowledge that mind is *quite independent* of matter; till then, we must continue to believe that its manifestation is *entirely* dependent on matter, however bad that matter may appear on dissection. Every one has seen respiration carried on, and pretty well too, with half a lung. Here, Mr. Miller might say, is a proof that breathing is much more independent of the lungs than is supposed by some. But such argumentation is unworthy of notice.

Art. VI.

Notes of some remarkable Cases. By James Molleson, M.D.

Case 1. *Stricture of the Ileum, and artificial Anus at the Umbilicus, &c. &c.*—Lexy Cuthbert, aged nine years, was attacked in January 1823, with colic pains and vomiting, after which a degree of bulimia prevailed, sometimes with little or no appetite. When brought home from school, in March of the same year, she had shiverings and tremors, succeeded by convulsive fits, which recurred five or six times. Besides these, she had fainting fits, often twice a day. There was general extenuation—derangement of bowels—diarrhœa. Soon after the colic attack above-mentioned, swelling, hardness, and pain of the abdomen came on, especially about the navel—and in April, prominence, tension, and great tenderness about the umbilicus. These symptoms were dispersed; but in August they returned, and an abscess burst, discharging pus and various portions of food. For upwards of 14 weeks this opening (about the calibre of a quill) discharged frequently a cup-full of alimentary matter. Hectic fever and cough came on in this period, and the unfortunate patient gradually sunk.

On dissection, it was found that the cavity of the abscess communicated with the ileum, the adhesions of the peritoneum being firm and extensive. There was a stricture of the ileum, situated some inches above the cæcum, and capable of admitting only an ordinary quill. In the lungs there were found tubercles and adhesions.

The other two cases are not of material interest.

Art. VII.

Case of the High Operation of Lithotomy. By George Ballingall, M.D. &c. &c.

Case. D. Meek, aged six years, a delicate boy, was admitted into the Infirmary of Edinburgh, for difficulty in making water (from infancy) and unconscious discharge of it in bed. On sounding, a stone was struck by Dr. B. though without any satisfactory noise being then elicited. During this and an other examination, the fæces were passed, and the rectum was considerably protruded. By a subsequent examination, with the finger in the rectum, and the hand above the pubes, the stone was distinctly felt, and ascertained to be of very large size. After due preparation, the operation was performed in the following manner.

" 'A silver catheter was introduced into the bladder, and after drawing off the small quantity of urine which it contained, an attempt was made to distend the bladder by means of tepid water injected through the catheter; this, however, was very imperfectly accomplished, in consequence of the boy's violent struggles, and the forcible resistance made by the action of the abdominal muscles.

" 'An incision about two and a half inches long was now made through the skin and linea alba, terminating at the symphysis pubis; the fibres of the pyramidal muscles were then separated in the mesial line, and partly detached from their origin in the pubes. The handle of the catheter being now depressed, its point was made to project about three-fourths of an inch above the symphysis, and a sharp-pointed bistoury was then pushed into the bladder, immediately below the point of the catheter, and carried down towards the pubes, by which sufficient space was made for the admission of the finger. On its first introduction, nothing could be felt except the extremity of the catheter; but on turning the point of the finger upwards, the stone was felt impacted in the upper part, or fundus of the bladder, altogether above the brim of the pelvis, and wholly above the wound. Attempts were now made to seize the stone with the forceps, which repeatedly slipped, bringing away with them considerable fragments of the stone. It being obvious, that nothing was to be gained by prolonging the incision downwards, it was now dilated upwards, on the point of the finger; and the attempts to bring away the stone by the forceps, scoop, and fingers in the rectum, were persevered in for some time without success. The stone, however, was brought nearer to the external orifice, and retained in that situation by the finger in ano. No farther prolongation of the wound upwards (however desirable) could be attempted, the peritoneum having been already laid bare, and the intestine threatening to protrude. Under these circumstances, an attempt was made to gain a little space, by cutting transversely; and a few fibres of the bladder were divided in this direction on the right side, when the stone was extracted, with a moderate degree of force. A quantity of tepid water was now thrown forcibly into the bladder, and the fragments washed out. The edges of the wound were besmeared with oil, with a view of preventing, as much as possible, the insinuation and lodgment of urine in the cellular membrane. Two stitches were passed through the upper end of the incision, supported by a strap of adhesive plaster; its lower extremity was left open, covered only by a slip of simple dressing, and a compress of soft lint. An elastic gum catheter was lodged in the bladder, and the patient conveyed to bed, having been in all upwards of half an hour on the table. The stone was of an irregular plum shape; weighing, exclusive of many large fragments, thirteen drams and one scruple: measuring in its longitudinal diameter upwards of two inches, and in its transverse diameter one inch and a half.' The fragments of the external layer, which were put into Dr. Turner's hands for analysis, contain some uric acid, but consist principally of mixed phosphate of lime and ammoniaco-magnesian phosphate." 261.

In the evening he was found to have much tenderness over the abdomen, with quick pulse, dry tongue, and hurried respiration. Leeches were applied near the wound, and some aperient ordered for next morning.

Next day the abdominal tenderness was diminished, and the urine flowed both from the catheter and the wound. But, by mid-day, matters changed greatly for the worse, and he died, at 8 o'clock in the evening.

On dissection, there were found some marks of inflammation on the peritoneum, and a little bloody serum in the abdominal cavity. The opening in the bladder was nearly two inches long. The upper part of this viscus, embracing the stone, was found enveloped with strong muscular fibres, converging towards a point a little below the superior extremity of the wound. At this point the coats appeared thickened, and the internal surface of the bladder was highly vascular, and of a soft flocculent appearance. Below the place where the stone was lodged there was some disposition to organic contraction. Dr. Ballingall makes several remarks on the above case, for which we must refer to the work. His reasons for preferring the high operation in this instance, were—the magnitude of the stone—the peculiar situation which it occupied—and the possibility of being foiled in extracting it by the lateral operation. He feels himself at a loss to account for the calculus having originally formed a lodgment for itself in the fundus of the bladder.

Appended to this paper is a short communication from Mr. Russell, giving the particulars of a curious case, where a stone was lodged in the superior fundus of the bladder, which grasped the whole of the surface, excepting a small portion, about half an inch in diameter, opposite to the transverse axis. The bladder was most contracted at this point, beyond which it became more expanded, and formed the principal receptacle for the urine. The stone passed through the narrow neck of the bladder to the length of about three fourths of an inch. The bladder was thickened and contracted, and, near the centre of the upper fundus, there was an aperture nearly half an inch in diameter: but the stone was so firmly grasped by the bladder, at this part, as to prevent the urine from escaping into the cavity of the abdomen.

ART. VIII.

A Case of Disorganization of the Stomach of an Infant, with Pathological and Practical Remarks; intended as a Supplement to a former Paper on the same Subject. By JOHN GAIRDNER, M.D.

IN the second volume of the present series, page 170. *et seq.* we gave an account of Dr. G.'s former paper on the above subject, while reviewing the first volume of these Transactions. Since that period, Dr. G. has seen only one decided case; but in it, the symptoms were so marked as to enable him, at the first glance, to recognize the existence of the disease. The subject was a boy, who was weaned at 11 months old, and, on the fifth day afterwards, was seized with diarrhœa, the stools being at first copious, green, slimy, and becoming watery in the course of the next two days. On the third day vomiting came on, with great thirst. These symptoms continued till the sixth day, when Dr. G. first saw the patient. There was then great emaciation—countenance expressive of anxiety—pulse 120—skin hot—thirst urgent—fæces nearly natural in appearance. The indications of cure which seemed most proper to Dr. G. in this case were to allay irritation, and produce a quiescent state of the alimentary canal. The ingesta were ordered to be of the mildest kind, and small in quantity—the gums were divided over the two middle incisores—no medicine to be given. The next day (7th of the disease) the vomiting had ceased—the diarrhœa, thirst, &c. much abated—the child seemed disposed to sleep. The regimen (half a wine-glassful of arrow-root every six hours) to be continued. The warm bath, if the heat should return.—*8th day*:—All the symptoms still more favourable. The same regimen. *9th day*:—"All the morbid symptoms gone." The arrow-root as before. Dr. G. began to have some hopes of a cure; but on the following morning (10th day) the child had three dark fetid stools, solid, with some griping. This was the beginning of a diarrhœa, which was never afterwards thoroughly arrested. By the 15th day, it amounted to six stools in the twenty-four hours, and, by the 20th day, to 10 stools per diem. The child died on the 30th day of the disease. During this period he had vomited once or twice only; but he had lost all appetite, had great thirst, and was exceedingly fretful and restless. Paleness and occasional coldness of the extremities, with feeble pulse, indicated, from day to day an increasing languor of the circulation. The emaciation was progressive.

Dissection. Intestines more thin and translucent than usual. Some trifling fæcal matters in the jejunum and ileum, of a deep yellow hue. There was bile in the gall-bladder—mesenteric glands sound, as were the thoracic viscera. On examining the splenic extremity of the stomach, a semi-transparency and blueishness were observed at one point, which Dr. G. knew to proceed from disorganization of its texture, proceeding from within outwards. On examination of the interior, Dr. G. found all the coats perforated, except the peritoneal, which was so much attenuated as to give way under the pressure of a few drachms of fluid introduced into the stomach.

Remarks. We confess that this case surprised us a little. For Dr. G. informs us, that he recognized the nature of the disease on his first visit to the little patient, and "warned its parents of the impending danger." Yet, in almost the same breath, he lays down his indications of treatment on which he "rested his hopes of cure." Notwithstanding this impending danger, the child lived 24 days afterwards, and at one time in this period Dr. G. reported—"all the morbid symptoms gone." When we reflect on the symptoms described by Dr. G. as obtaining when he was first called in, we are really at a loss to know how he could, *by them*, recognize so formidable a malady as approaching disorganization of the stomach. Every practitioner meets with such symptoms daily, where no fatal issue takes place. Besides, when we recollect how quickly these circumscribed disorganizations of the stomach are produced, and how often they are seen in bodies, where no signs during life indicated their previous existence, we can hardly bring ourselves to believe that the affection of the coats of the stomach was the original cause of the symptoms. We are much more disposed to think that it arose in the course—perhaps near the close of the disease. The actual erosion, indeed, is considered by Dr. G. himself as a *post-mortem* process. "I am still of opinion that, whatever the changes may be which occur during life, the destruction of the stomach occurs after death, by the action of the fluids within upon its texture." The following observations respecting the subject of weaning, we deem worthy of insertion.

"1. *The condition of the Patient.*—If it has been liable to diarrhœa, or is a feeble child, emaciated by previous illness, weaning ought, if possible, to be avoided. If diarrhœa is actually present, the child should not on any account be weaned.

"2. *The season of the year.*—The disease seems to be most apt to happen in the hot weather of summer and autumn. In this the experience of Cruveilhier, and I think of Jaeger also, agrees with

mine. Mr. Burns states, that the four instances of disorganization of the stomach of infants, which he found in the dissecting-room, and of whose history, during life, he was ignorant, were all in the summer season. Dr. Cheyne, whose cases of atrophia ablactatorum closely resemble mine in many of their characters during life, (though he does not appear to have detected the same appearances after death,) expressly states, that 'the disease chiefly arises in the autumn.'* I do not find that any cases, similar to that described above, have ever occurred in winter.

"3. *The Sex of the Patient.*—From the above case, and those registered in the table already referred to, it would appear that boys are more prone to the disease in question than girls. In some of the cases the sex has not been noted, but of eighteen in which it is noted, fourteen were boys and four girls." 387.

IV.

Voyage en Italie, fait en l'Année, 1820. *Deuxième Edition, corrigée et augmentée de Nouvelles Observations faites dans un Second Voyage en* 1824. Par le Docteur LOUIS VALENTIN, Chevalier des Ordres, &c. &c.

Dr. Louis Valentin's Travels in Italy, in the years 1820, *and* 1824. *Second Edition.*

"MEN run to and fro, and knowledge is increased." So says Holy Writ. But others have said—"multum mentitur qui multum vidit;" and this we fear is too true. As far as our profession is concerned, the general impression is, that the travels of a well-informed physician may prove very advantageous to his native country. This must have been the impression on Dr. Radcliffe, when he bequeathed 500 pounds per annum for the support of a medical traveller-ship—and the impression has been kept up, of course, by the treasures of medical lore, which have been poured into this country quinquennially from the budgets of the "professors of travelling," thus fed and clad by the pious bequest of the Oxonian patriot. Whether a fixed salary for doing a certain duty be a better stimulus towards its performance, than the hope of gain or fame to be acquired by individual exertion, it is not for us to determine. Neither is it our intention to institute any comparison between

* Vol. i. Essay, 2. p. 29.

the products of the "travelling fellows of Oxford," and of their "fellow travellers," in the army, navy, and private life. Certain it is, that the labours of all these classes have met a favourable reception from the public, notwithstanding the "multum mentitur" reservation which must be made in perusing the narratives of medical as well as other peregrinators.

When Dr. Valentin published his first edition, under the title of "*Voyage Medicale*," he was well received, and he was stimulated to make a second journey through "le plus beau pays de l'Europe," for the purpose of enlarging and improving his first work. We confess that we should have been much better pleased, if he had adhered more to the *medical* part of his plan, and attempted less in the way of scientific researches, for which there were plenty of other tourists, at least as well qualified as himself. Dr. V. however, is ambitious of being considered a *scavans*, and possibly, on this account, he may rather lose than gain in the character of physician.

Three leading motives determined our traveller to cross the Alps—the *first* was his HEALTH—the *second* was "a new doctrine in medicine which, for some years, attracted attention, while another in France, had acquired extraordinary celebrity" —the *third* was rather a curious motive—"the eruption of Vesuvius," "L'Eruption du Vesuve." Vulcan had set all his forges at work, in the winter of 1819, and continued his subterranean operations in April, 1820—the temptation could no longer be resisted, and the doctor set out to contemplate this grand phenomenon, and to view the skeletons of towns that had lately been disinterred from those graves of Lava, in which they had slumbered for seventeen hundred years. Dr. V. had travelled before. He had traversed the Atlantic, and spent eight years in America. He had crossed a more formidable ocean—the British Channel, and visited England and Ireland—he had evenbeen beyond the Rhine—"au-delà du Rhin"—and, therefore, he did not go an unfledged youth into "Latium's velvet ground," but as an experienced traveller, rich in the knowledge and information which he had gleaned in various climes.

Et mores hominum multorum vidit et urbes.

Dr. Valentin felicitates the English nation on the great advantages that result from "the travelling fellowship," and seems to cast a longing eye on the "12,400 francs de nôtre monnaie," which those *happy fellows* annually pocket, for so delightful an occupation. "On concoit qu' une pareille institution ne peut avoir que les plus heureux résultats." He would

be quite in raptures, if he knew the extent of advantages which have resulted from this munificent institution. But, perhaps, in this case, as in many others, "ignorance is bliss;" and, therefore, we shall not make him acquainted with the whole of our felicity.

"The traveller," says our author, "who means to benefit by his peregrinations, should make up his mind for all contingencies, and expect to meet with many difficulties which may put his zeal and patience to trial. It is true that, marching under the banner of the God of Epidaurus, he will have many facilities, and meet with various opportunities of doing good—so true is the expression of an Emperor—'that in all places, the practice of medicine is the exercise of every virtue.'"

"No sooner does the young physician quit his native soil, than every thing around him acquires a new interest in his eyes. His soul is elevated—and his imagination enlarged. By degrees, he loses his prejudices, his intolerance, and his presumption, the constant attendants on ignorance. Perceiving the futility of those systems in which he has been educated, he finds at last, that the learning on which he so much prided himself, becomes reduced to a very small amount. By comparing men, opinions and things, he learns, at length to estimate each at its just value. Nevertheless, in order that medicine and philosophy may be gainers by his travels, he should take truth for his guide—have an honest heart—kind and benevolent dispositions—judgment to resist seductive but erroneous theories—and, finally, he should cull from the nations which he visits, only their virtues and their knowledge." *Pref. p.* 10–11.

The foregoing extract from the preface cannot fail to place our author in a favourable point of view; and, to say the truth, he seems to have taken as small a portion of pride and prejudice over the Alps with him, as could well be expected. He appears to have tasted the bitter cup of adversity, in a long expatriation, during the terrors of the Revolution, and to have returned to his native soil full of that sentiment so often felt by Britons:—"*The more I see of other countries, the better I love my own.*"

But it is time to commence our Journey, which we do in very good humour with our agreeable companion.

Dr. V. embarked at Marseilles, and in ten days arrived in the Bay of Naples. We do not wonder at his admiration of the magnificent scenery which Vesuvius, Mount Pausilippus, Ischia, Procida, Caprea, Naples itself, and a hundred other objects combine to form. Our author hastened to climb to the crater of Vesuvius, and no doubt fancied himself a second Pliny, while contemplating the terrific heavings of old Vulcan in this, his fiery laboratory. But Dr. V. had nearly suffered the fate of

the philosopher of Parthenope, for his curiosity. He was saluted by a sulphureous vapour, which instantly deprived him of the power of breathing, and his guide fortunately succeeded in dragging him down into a cooler air, where he soon recovered.

From this dangerous excursion he descended to the more tranquil and not less interesting ruins of Pompeia and Herculaneum, where he strode the identical halls and apartments once inhabited by a Sallust, a Polybius, and a Cicero. We dare not tarry with Dr. V. in these places; and we reiterate our opinion, that he might have employed 50 pages of his work to much more advantage in the investigation of the medical topography of Naples, to which city so many invalids resort for health, than in descriptions of ruins and other antiquities, which have been described over and over again by so many travellers.

HOSPITALS.

The Hôpital "*des Incurables*" is a vast edifice in the centre of the city, and contained 900 patients when our author was there. Among the *incurables* admitted into this hospital, are pregnant women, "who wish to conceal the fruits of their amours." We suppose they are received under the impression that they are *incurable* in a moral, rather than in a physical point of view. This supposition is strengthened by the calculation made by Cottigno, that 950 in every 1000 of the inhabitants of Naples, are afflicted with syphilis! We hope this information will induce some of our London philanthropists, as the Eadys, the Catons, and other "reformers of the constitution," to emigrate to a scene where their talents may have ample scope.

Dr. Ruggiero informed our author that phthisis claims a fifth of the bills of mortality in Naples. If this be a fact, we have little reason to declaim against the gloomy skies of old England, as far as regards pulmonary consumption. Pneumonia is rarely treated by venesection in Naples. Small doses of tartarized antimony, and afterwards digitalis and nitre, are the remedies on which they rely. The mortality in this class of complaints, varies from 4 to 8 per cent, which certainly is a testimony favourable to the practice pursued. Hæmoptysis is treated by digitalis, and so is mania sometimes. In the case of an officer recovering from this last disease, the dose of digitalis has been carried to 18 grains per diem. Dr. Savaresi informed our author, that when he first went to Martinique, he tried the antiphlogistic plan of treatment in yellow fever—and lost all his patients. He then had recourse to *tonics*—the practice of

Jackson—and was universally successful! Drs. V. and S. must have read the works of Dr. Jackson to great advantage!

The picture which Dr. V. draws of the Lunatic Hospitals is horrible, and we shall pass it over. Here our author met with the venerable Scarpa, who, at the age of 71, was travelling to see Italy, which was, he said, comparatively a *terra incognita* to him.

STATE OF MEDICINE.

Brunonianism reigned triumphant for the space of 30 years in Naples but is now superseded by the doctrine of *contro-stimulus*—at least, among all the young medical men, and the conductors of Journals. The older practitioners adopt an eclectic medium. Dr. Savaresi informed our author that he trusted to nothing but, "*ratio, observatio, et experientia.*" He is right. Naples has been a prey to epidemic fevers, of late years, which have been treated in various ways—sometimes on the most contrary plans. The best informed practitioners are of opinion that the epidemics varied so much that the principles and practice of one year formed no guide for the next. This, we believe, is the case, and will be so till the end of time.

In continued fevers, the Neapolitan physicians use acidulated drink—small doses of tartarized antimony—cold effusions—ices—and blisters. The quinine is in high reputation there for the cure of intermittent, remittent, and pernicious fevers, which are very common about Capua, Salernum, and Pœstum. Auscultation had made but little progress—and local bleeding was much neglected. Lithotomy is very successful at Naples, and symphysiotomy has been four times performed with success by Dr. Bruno.

In the Kingdom of Naples, as well as in Sicily, ices are in constant use by the inhabitants in the hot season, and especially during the Sirocco winds. It would be difficult, our author thinks, to live without such a necessary beverage in such times and such places. The ice gives tone to the organs of digestion, and, by its cooling properties, prevents inflammatory affections of the mucous membrane.

Phthisis, as every one knows, is considered to be highly contagious in Italy and Sicily. Bronchocele is very common at Naples, especially among females. In a French family there, the whole of the girls were affected, while the boys escaped. Quadri and his followers have abandoned the use of the seton in bronchocele. Iodine is entirely trusted to for its cure. Vaccination is unquestioned, as to its preventive powers in Naples. Those who neglect to have their children vaccinated are de-

prived of many privileges, and cannot receive any honours, titles, or marks of distinction from the Government.

Several medical journals are published in Naples, and Professor Lanza, whose work has been lately translated into English, is a leading character among the medical literati of the day. Mineral waters are plentiful in the environs of Naples, and some of them are powerfully impregnated with sulphuretted hydrogen gas, and, consequently, are much resorted to for the cure of cutaneous complaints.

Our author was too curious a traveller not to visit the Grotto del Cani. He found that the stratum of carbonic acid gas on the floor was about 12 inches thick. A little dog was asphyxied in our author's presence, and restored by a plunge in the neighbouring lake. Dr. V. lay down on his face, in order to put himself on a level with the dog, but the gas had no other effect on him than that of producing an acid taste in the mouth. The Doctor did not, therefore, require immersion in the lake. This is all the medical intelligence we could gain from the Neapolitan part of the tour.

Rome.

A run of 48 leagues through Terracina, the Pontine fens, &c. over an excellent causeway, bordered, for 20 or thirty miles, with two rows of trees, brought our author to the gates of the Eternal City. Rome presents a great contrast to Naples. In the *latter*, the eye is delighted at every step—it is the land of pleasures. In Rome, every thing is sombre and tranquil—it is the land of antiquities, of wonders, and of study. We shall not follow Dr. V. in his description of architectural ruins, which he had much better have passed unnoticed.

Hospitals.

There are eight civil and one military hospital in Rome. St. Esprit is the principal, and may contain, on an emergency, eight or nine hundred sick.

Every one has heard of the insalubrity of Rome in the summer season, and the *malaria* with which it is infested. It is still maintained by a party, (though in the minority,) that the insalubrity of Rome is owing to the cutting down of the forests, (the nemora sacra of the ancients,) situated between the Pontine fens and the city. This was the opinion of Lancisi. But the opposite opinion is better supported. If the fenny emanations where capable of being transported so far, without change, by the south-west winds, how is it, ask the anti-Lancisians, that the towns of Velletri, Gensano, Albano, and Ariccia, which are in the direct tract, should be more healthy than Rome itself? We

are not inclined to partake of Dr. Valentin's opinion, that the cause of Roman insalubrity is to be sought in the neglect of public and private hygiene, of medical police, and of moral and physical education. These are very unlikely to be the causes of the annual visitations of fever in Rome. There can be little doubt that they are owing to a local febrific miasm, though we cannot account for its generation or extrication, no more than we can account for the eruptions of Mount Vesuvius, whose subterranean thunders were silent for two hundred years, and then broke forth again, without any ostensible reason. To the soil of Rome, then—to its hot and humid atmosphere—to the influence of inundations of the Tiber—to the dirtiness of the alleys and courts, are we to look for the causes of its insalubrity.

A French Physician, Dr. Gonel, resident at Rome, conceives that the malaria is principally, if not solely, composed of carburetted hydrogen gas, which, he says, issues in such abundance from the earth, at certain times, and in certain parts of Rome, that it takes fire spontaneously. A great deal of sulphuretted hydrogen gas is also extricated, and proves extremely ungrateful to the respiratory organs and nerves of sense. The basin, indeed, in which the everlasting city is built, appears to have been an extinguished crater of some volcano, and the number of other extinct volcanos dispersed over the country is great.

Rome, then, being situated in a low plain, surrounded by hills, and with a Sirocco prevailing the greater part of the year, which wind is there both hot and humid, we need hardly wonder that the air should be unwholesome, especially when we reflect on the extrication of gazeous exhalations from the bowels of the earth, the choked up canals, and the dirty streets. To these may be added, the rapid and great atmospheric transitions which are so very common at Rome—the nights being generally cold, and the heat of the day intense—the dews heavy, and the mornings raw. Such a combination of circumstances is well calculated to produce fevers of every type—especially the intermittent and remittent classes. No idea is entertained that these fevers are contagious. In this respect they assimilate with paludal fevers in other countries.

A French physician, M. Bailly, who sojourned a good while at Rome, has investigated the post-mortem appearances in these fevers, and found traces of gastro-enteritis in almost all of them. On this subject we need not at present make any remarks—except that he found the same appearances in those who died of pulmonic inflammation. In fact, we believe that few die of any disease without suffering more or less of inflammatory irritation in the mucous membrane of the bowels. Diarrhœa

is one of the most frequent of all harbingers of death—but the state of membrane by which this symptom is produced appears to be a consequence, far more frequently than a cause of the fever or other disease towards the close of which it is developed.

Goitre is very little seen at Rome; and ophthalmia much less frequent than at Naples. Consumption is common as at Naples; but the creed of contagion, as respects phthisis, is on the wane in the states of the Pope.

In almost all diseases, bleeding is the first remedy among the Roman physicians; and it is considered as highly preventive of the impression of the malaria. Emetics are little employed. Bleeding is resorted to by all classes; and although some strong protests have lately been made against the practice by some writers, they are not at all attended to.* We should suspect that a custom which has taken such deep root in and out of the profession in Rome or any other country, is not likely to be void of some solid foundation. The stethoscope is neglected by the Romans, although introduced to their notice by our countryman, Dr. James Clark. Ices, as at Naples, are considered equally salutary and luxurious.

An immense expenditure of cinchona is made in Rome. Its administration is generally preceded by venesection. It is calculated that in Rome and the immediate neighbourhood, ten thousand two hundred pounds (12 ounces to the pound) weight of bark are annually consumed! The sulphate of quinine, however, is now universally adopted there. Dr. V. was assured that the celebrated *aqua tofana* was nothing more or less than a dilute solution of arsenic in water. Given slowly, it slowly occasioned death, without leaving any traces of its effects in the dead body. Vaccination languishes at Rome, being left optional with families. The population of the eternal city is rather under 148,000 souls—a great falling off since the Augustan age!† In 1819, the births were 4299, and the deaths 6114. The deaths are as 1 in 144 of the population annually. Notwithstanding that the deaths exceed the births, the population is on the increase—no doubt from the influx of strangers since the peace.

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* The new Italian doctrine of contro-stimulus has made little progress in the Papal dominions. The doctrine of Broussais is known, but not much credited. The 'médécine Hippocratique" is in most request at Rome—*Rev.*

† Tacitus, the faithful historian, and the intimate friend of Pliny the younger, informs us that, in the reign of Claudius, the population of Rome and suburbs was nearly *seven millions*—more than six times the population of London!

FLORENCE.

Our author travelled from Rome to Florence through the Appennines, by way of Terni, Spoletto, Cortona, and Arezzo. From Terni he went to visit the famous waterfall of Velino, 700 feet in height. But as it is twice interrupted in this descent, it cannot be compared with the Staubach, in the romantic valley of Lauterbrunen, which falls 800 feet without a single interruption. When the waters are free, this last is the most magnificent cascade we have ever seen in any part of the world.

Florence, the great resort of the English, contains 82,000 inhabitants. It is well built, and traversed by the beautiful river Arno. In the evenings, the delightful promenade of the Cassina presents a brilliant assemblage of beauty and fashion.

The affability of the Florentines, the mildness of their government, the good society, the number of public amusements, the cultivation of the arts and sciences, the salubrity and temperature of the climate, and the cheap living, have all combined to render Florence the abode of numerous families, especially English, whose *res angusta domi*, the education of their children, or their own health, compel them to emigrate for a time to a foreign land. It is to be recollected, however, that the proximity of Florence to the Appennines renders the air very piercing, at certain seasons, and, therefore, not so well adapted for the pulmonary invalid as some other parts of Italy. We shall not follow Dr. Valentin's long and uninteresting detail of the wards, kitchens, and medical offices of the hospitals. Of what possible interest can such catalogues be to ninety-nine in the hundred of his readers?

Dr. Polidori appears to be one of the principal physicians of Florence. He believes that all fevers are primarily of the same nature, as to proximity of cause; they only vary in consequence of difference of constitutions. The inflammations which we find in the dead body, are effects or complications, not causes of the fever. He is inclined to the humoral pathology. His method of treatment is very simple. He does not carry bloodletting to extremes. He gives emetics in gastric and peripneumonic affections. Nux vomica in paralysis, and prussic acid in pectoral complaints, have entirely failed in his hands. He treats with almost unvaried success, the most obstinate intermittents, by a mixture of twenty grains of emetic tartar and an ounce of powdered cinchona. This, we suppose, is the quantity for an intermission. Syphilis is successfully treated by mercurial frictions.

Dr. Bigeschi, of the lying-in-hospital, administers the secale cornutum, with great success, in the acceleration of parturition. He informed our author that, in more than 60 cases in which he exhibited the medicine, only two failed to show the desired effect of the remedy. He gives 30 grains for a dose. Sometimes he gives a second dose of 20 or 24 grains, half an hour after the first. Fifty grains have produced no bad effect. Subsequent experience has confirmed Dr. B. in his opinions of this medicine.

The state of medical practice at Florence savours of the eclectic, partaking of the new Italian doctrine of contro-stimulus, and the doctrine of Broussais. Blood-letting, local and general, is employed by all.

Our author, after filling scores of pages with accounts of observatories, cabinets of curiosities, &c. sets out and visits Sienna. The climate of this place is said to be temperate, but subject to sudden vicissitudes. The town is exposed to the mistral, or northerly wind, which is sometimes very keen. Inflammatory diseases and marsh fevers are common there.

Our author gives some particulars of the life of Mascagni, the celebrated anatomist, who was a native of this place. He was successful in the employment of large doses of sub-carbonate of potash and also of soda in calculous complaints. He died of a marsh fever, in 1815, aged about 61 years. He was of small stature, and much addicted to opium, of which he took more than 140 grains per diem. This medicine, which composes some people, and makes others very ill, had an exhilarating effect on Mascagni, and enabled him to pursue his midnight studies without fatigue. He contracted this dangerous habit when he was employed on his work on the lymphatics, and was never able to leave it off afterwards.

Leghorn.

This fine sea-port contains about 75 thousand inhabitants. Pulmonary affections, phthisis, dysentery, gastro-enterites, intermittents, and ophthalmia prevail there. Dr. Palloni calculates that one death in five is caused by phthisis. Drs. Dufour and Martolini begin the cure of intermittent fevers, without any preparation, by giving one grain of tartar emetic and three drachms of bark, and repeat the dose twice in the course of the intermission. In bad cases the dose is increased. The sulphate of quinine is now superseding the above plan.

Leghorn, being situated on a plain which was formerly a marsh, and close to the feet of high mountains, with much stagnant water in the fosses, contains within itself the materials

for fevers of the paludal character. The temperature of the air is agreeable here, and the heat never excessive. Dr. Valentin having got on his favourite subject of yellow fever, (he is an ultra non-contagionist,) we are obliged to leave him in the midst of his host of proofs that this disease is of home-growth at Leghorn; as well as at most other places.

PISA.

This city is pleasantly situated about six miles from the sea. The population is about 16,000 souls. Formerly it amounted to 150,000! M. Vacca Berlingheri still continues to practice the recto-vesical lithotomy; and, it is said, with success.

BOLOGNA.

This city is one of the most interesting, in a medical point of view, in Italy. It contains 80,000 inhabitants. It is here that Tommasini lives, and the new doctrine of contro-stimulus reigns. Rassori, it is true, is the founder of the new doctrine; but Tommasini has greatly modified it. The French and Italian professors both claim the important discovery, that fever is never idiopathic, but always symptomatic of some local inflammation. As we do not admit the truth of either of their doctrines, we shall not stop with M. Valentin to investigate their claims to propriety.

PADUA.

This university is a formidable rival to that of Bologna. Padua has given birth to great men in our profession. Morgagni, Fabricius ab aquapendente Scarpa, Brera, and others, have thrown a lustre over its annals. The immortal Harvey studied there.

VENICE.

We shall not stop long at this ancient mistress of the seas. A woman was shown to Dr. V. by Dr. Piccoli and Dr. Baldini, who, after a sudden suppression of the menses, in consequence of a fright, became affected with discharges of blood from almost every outlet of the body. She first had hæmoptysis, then hæmorrhages from the stomach, mouth, eyelids, nipples, nose, rectum, &c. The Italian physicians were foiled, and asked Dr. Valentin's advice. He recommended them to leave off all internal emmenagogues, and to give ices, using every possible means externally of drawing blood towards the uterus, as semicupia, leeches to the vagina, &c. He had since learnt that the menses returned, and that the woman is cured.

Milan.

This city, which is called the Paris of Italy, contains about 130,000 inhabitants. Intermittent fevers prevail here, together with pulmonic inflammations, and phthisis. Scrofula and the pellagra are common at Milan and in the plains of Lombardy. The method of Grannini, which consists in the affusion of cold water on the body, after the hot stage has become developed, is going out of use. We wonder how it ever could have come into practice. The physicians of Milan are divided into three sects—the eclectics, the contro-stimulists, and the followers of Broussais. In the first class are the medical officers of hospitals—in the second, the pupils and the partizans of Rassori. The last professor had been a most zealous Brunonian, and had translated Brown's Elements into Italian with notes; but shocked and grieved by the havoc which this doctrine had caused in the epidemic fever at Genoa, he abandoned Brunonianism, and erected on its ruins the celebrated contro-stimulism of the present day. Rassori now gives large doses of sulphate of quinine, generous wines, and opium in fevers—and swears they are excellent contro-stimulants!

He believes in the existence of idiopathic fevers—and considers the local inflammations which we find after death, as the effects rather than the causes of the fever. He bleeds where much excitement appears in the beginning. In pulmonic and other visceral inflammations he depends chiefly on large doses of emetic tartar, with drastic purgatives. The general opinion in Italy is, that the doctrine of Rassori will shortly undergo the fate of Brunonianism. The followers of Broussais, composing the third class, are not numerous, but they are very zealous. They have a medical journal in their service.

Dr. Valentin gives some account of that curious cutaneous disease, the PELLAGRA, endemic in Lombardy. The backs of the hands and of the feet are the principal seats of the disease. The skin becomes red, wrinkled, and at last furfuraceous, but without heat or pain. The patients are emaciated, melancholy, and hypochondriacal, in a high degree. They suffer much along the spinal column, and are extremely weak. The disease becomes complicated with insanity, maniacal delirium, or pneumonia, tabes, dysentery, œdema, &c. but without any diminution of the pellagra itself. Many instances of suicide are the result of this strange malady.

This disease appears in the spring, increases in summer, and declines in the autumn. The causes are unknown, and the cure is chiefly effected by repose, milk, good diet, wine, and

warm baths. Emigration to another part of the country cures it, if early put in practice.

Dr. Strambio has minutely examined 38 bodies dead of this disease, and found organic lesions in the head, the vertebral canal, the chest—but especially in the abdomen. "He was the first to demonstrate that the cutaneous affection was merely symptomatic, and that the stomach, liver, and intestines, were the primary seats of the disease." M. Brera avers that he has found the ganglionic nerves in a morbid state in this disease, which is not improbable. We wish he had given the details of his dissections.

We must now hasten to a close: under the head of Parma, where our author gives, as usual, a description of the hospitals and all other public places, we find the following case of rupture of the uterus and gastrotomy.

Case. Angiola Grossi, aged 44 years, had borne five children, and was pregnant of the sixth. Labour came on at the proper time. She suddenly turned sick and fainted. When she recovered, she felt extreme pain in the abdomen, with dreadful sense of distention. The abdomen swelled—the vomitings increased—the difficulty of breathing became alarming, and Professor Jos. Rossi was summoned, who soon recognized rupture of the uterus, and the escape of the fœtus into the cavity of the abdomen. Several medical men were now summoned, and Professor Cecconi undertook the operation. This was performed two hours after the rupture of the uterus. The incision was made in the left side—the fœtus seized by the feet, and extracted, together with the placenta. The wound was sewed up, and in 40 days afterwards Grossi was able to walk about quite well." P. 331.

Three years afterwards this woman again became pregnant, and was delivered without accident.

At length Dr. Valentin turns his face homeward, and makes various excursions among the Alps. He visited Chamouni, the Montanvert, Mere de Glace, &c. His health was now greatly improved, and he had lost many troublesome symptoms, especially palpitations of the heart, and vertigo. "Ma santé s'est trouvé meilleure; des palpitations et des vertiges, qui compliquaient mes anciennes infirmités, ont desparu."* Dr. V. cannot be very young, since he informs us that 36 years ago a medal was given him by the Royal Academy of Surgery, for an Essay on Goitre and Cretinism. He means to publish again on the same subjects.

* See Dr. Johnson's remarks on the effects of travelling among the Alps on the functions of the heart and of various organs, at pages 121-7 of his Essay on MORBID SENSIBILITY of the Stomach and Bowels.

We cannot help reiterating our opinion that, on such a journey as this Dr. V. might have made a much greater number of original observations than he has done. The work may be useful as a "compagnion de voyage," for the medical traveller; but is worth little to those who must travel by the fireside through the medium of others. We have given the whole of the purely medical information in a single sheet of our Journal.

V.

An Inquiry concerning that Disturbed State of the Vital Functions usually denominated Constitutional Irritation. By Benjamin Travers, F.R.S. &c. 8vo. 1826. (3d and last article.)

In the two preceding articles on Mr. Travers's work, there has been little else attempted than an exhibition of practical illustrations, or examples of local and constitutional irritation, without entering into the theory or nature of the subject. This was the course pursued by our author, and we were obliged to follow him in his arrangement, which is the reverse of that usually adopted by writers, who generally state their theories first and their illustrations afterwards. We do not say that the arrangement of Mr. Travers is inferior to the other—on the contrary, the presentation of those facts on which a theory is based, prepares the mind for the theory itself, and probably predisposes to an assent which might be withheld, if the doctrine were abruptly revealed, without the precession of facts and examples.

In the fifth chapter, then, of the work, Mr. Travers commences his investigation of the theory of irritation, by some observations on the "reciprocal relations of the vital functions." Our author, while he exhibits a decent respect for the experimental investigations of modern physiologists, appears to place little confidence in the conclusions to which they have led. Thus he observes that, although the experiments of Dr. Philip go far toward the presumption of identity between the nervous and electric fluids, yet the "knowledge of an instrument which serves as a conductor of nervous power, makes feeble

approximation to a solution of the problem of life and living actions." And, again,—although it appears that some nerves are destined to be conductors of sensation, and others for motion; yet "to what a monstrous solecism in pathology," says he, "would the doctrine lead, that the *heart is independent of the brain*, because its action continues for a period after the brain and spine are removed—or that the muscular action is a distinct and inherent property of that texture, independent of the nervous, which is only one of its stimuli!" Taking the word *independence* in its common acceptation, as applied to two nations or two individuals, it is perfectly ridiculous, when pressed into the service of physiology, and was a very unhappy expression to select. The heart is no more independent of the brain, than the brain is of the heart. The function of one cannot exist without the other. All the vital viscera, in short, mutually assist and derive support from each other, and the destruction of one must inevitably prove the destruction of the others. But, notwithstanding this mutual dependence on one another, there is still a kind of independence attached to each. The heart has its function to perform, and has its peculiar nerves —so has the stomach, and so on. In perfect health and tranquillity, therefore, the organs appear to carry on their duty with little *interference* from others. But let the function of one be *disturbed*, and almost instantly the functions of all the others are *influenced* in one way or other. Let the heart cease, as in syncope, and see what will become of the sensorial functions—let the cerebral functions cease, and see how long respiration, digestion, and circulation will go on. While we agree with Mr. Travers, that "facts of every day's occurrence speak a language far more explicit than that which is extorted by artificial and unavoidably imperfect contrivances;" and that "no result has yet appeared to invalidate the fundamental truth that the brain in totality holds in dependence, immediate or *intermediate*, all the phenomena of life," we are still of opinion that the ganglionic system of nerves holds as absolute dominion over the viscera to which they go, as the brain does over the voluntary muscles. There is, it is true, an intimate connexion established between the two systems, by means of the great sympathetic, the par vagum, the phrenic, &c. so that the one system has the constant means of powerfully influencing the other, without, however, destroying that comparative or qualified independence of which we have spoken. It seems, indeed, a wise provision of Nature, that the vital viscera and their functions should have *a degree* of independence of the brain, and *vice versâ*. When morbific agents, however, are applied to either system—sensorial or ganglionic—we find this degree of independence not a whit too great. In short, we would not

perhaps, be far wrong, if we were to assert that one half of the morbid phenomena, presented by the sensorial system, results from the influence of the ganglionic viscera—and that one half of the disorders of these last organs is produced by mental, or in other words, sensorial agency. While physiologists, therefore, go on disputing about the *independence* of these or those organs and functions, the physician can see nothing of such independence; but, on the contrary, the perpetual sympathetic operation of one organ and function on another, throughout the whole chain. This, indeed, is the conclusion to which Mr. Travers, and every practical man comes at last.

"There has been much fallacy, as it appears to me, in Bichat's and other estimates of the comparative influence of the vital functions upon each other; but admitting their general accuracy, to what inference do they lead? Not to that of the independence of either, but the contrary, viz. the inseparable connexion and dependence of each upon the other. In fine, the alliance between the nervous and vascular systems is such as renders it impossible for either to be affected in any serious degree, exclusively." 429.

If the nervous energy be essential to the muscular action of the heart, so is the perpetual current of blood to the functions of the brain. It is, therefore, idle to argue about primordial priority in these two functions. "It may be that *one* is specifically constituted to receive and transmit impressions, both from within and from without, thus establishing the relation of all parts of the system with each other, and of the whole with the material world; and this being unequivocally the case with the nervous system, it must be regarded as that which presides over the vital functions, and through the medium of which they are prompted, regulated, and harmonized." The following appears to be a kind of definition of irritability and irritation, to which we see no objection.

"The irritability of a part conveys to my mind the idea of a sensitive impression and a consequent action. Such impression and action may be strictly local, i. e. not reported to the common sensorium, and under ordinary circumstances, this is the case as regards the involuntary muscular system. The exaltation of this impression under extraordinary circumstances, and its propagation to the brain constituting a sensation, occasions an interference, greater or less, with the habitual actions of parts not subject to the will. Thus extraordinary sensations disturb the habitual action of the heart, liver, bowels, and other viscera. I can see no inconsistency in this explanation of the habitual excitement of the involuntary actions by local and unconscious impressions, with the theory of the universal instrumentality of the nervous system, and it accords with the separableness, to a certain extent and no more, of an involun-

[illegible] from the system at large, without arrest [illegible]* There is sufficient reason to believe [illegible] of the involuntary nerves is so far independent of the [illegible] sensitive impressions and actions of the [illegible] and not transmitted or performed through its [illegible] So much may be inferred from their temporary existence [illegible] their correctness in the states of infancy and sleep, [illegible] and from the analogy of certain direct habitual actions [illegible] muscles after their separation from the nervous centre, excited by mechanical excitement.† The infinite degrees, varieties, and fluctuations of natural sensation, obvious to our experience, give additional support to the theory of an instinctive or proper sensibility of those parts to their proper stimuli, which are endowed with a power of acting independent of the will." 427.

In the second section, entitled "derangements of the nervous system, physical and functional," there are scattered a variety of just remarks and accurate observations, showing the author to be an acute clinical observer—but so unconnected are they, and so void of any clue or thread of arrangement, that we find it impossible to convey, in our own language, a summary of our author's ideas; we must, therefore, have recourse to extracts more frequently than is our custom upon ordinary occasions.

All organs are subject to be affected by remote morbid actions through the medium of the brain—and the brain itself, as the source and centre of sympathy, is especially liable to be affected in its function, both by external and internal causes. Numerous instances of the former class have been adduced by Mr. T. in the preceding articles, and the endless modifications of hysteria present sufficient examples of the latter.

"Frequent instances of sudden death, consequent upon injuries which leave no trace of their destructive operation upon the texture of the vital organs; other instances of death after the lapse of a few hours or days, and some even of weeks from the injury, admit of no other explanation according in any degree with the history and symptoms of the malady, than a suspension or failure of the nervous power. Between those which are of short duration and certain physical injuries of the brain, there is a considerable though not a strict analogy: whereas those which are protracted are characterized by symptoms of exhaustion more nearly resembling such as attend upon changes of structure, in organs auxiliary to the support and preservation of life." 432.

The universal diffusion of the nervous system and its uni-

"* Especially in sudden and violent death, in which case alone the protraction of the heart's motions has been satisfactorily ascertained."

"† Mayo's Comment. Part. II. p. 19."

versal sympathy must be borne in mind in considering these cases.

"It being admitted that injuries and operations are occasionally fatal, which have no relation of contiguity to the vital organs, by inducing certain trains of symptoms which obviously belong to the nervous system, it remains to be inquired, on what principle and in what manner they act destructively. The first and most palpable evidence of impression is that upon the heart. Every thing denotes diminished energy of circulation. In addition to a small and very feeble pulse, we have langour, if not stupor, paleness, chilliness, &c, The nervous influence is capable of acting directly upon the heart either as a stimulus or a sedative. There is no other medium by which an impression, external or internal, can be transmitted. The vital organs are most deeply affected by impressions made over a large surface. Under the permanent depression, as under the privation of the whole nervous function, the properties of sensation and volition, of irritability, and of involuntary motion, cease in succession. The blood, however prepared, cannot excite the heart to action, nor the atmospheric air the organ of respiration, if that irritability or appetency, if I may so express it, which renders them respectively susceptible of and obedient to these stimuli, be exhausted or destroyed." 436.

The *direct* injury of an organ affects its function secondarily —that produced by *sympathy* acts first upon the function. Thus paralysis of the bladder succeeds to a violent blow upon the loins or the abdomen—but it also frequently succeeds to the removal of a tumour, or a spreading inflammation upon any part of the body. In the same way it sometimes happens that the muscles of respiration or the heart itself are similarly affected. Thus a patient has sometimes died upon the table, prior to the commencement of an operation —or immediately after its conclusion. "This is a case of syncope from paralysis or spasm of the heart." Our author knows of no other way of accounting for death in angina pectoris, where no change can be detected in the heart *post mortem*.

On the effects of physical concussion of the brain and nervous system, Mr. Travers makes several just observations. The following extract is worthy of notice.

"It may seem paradoxical to say, that by an injury which has locked up the functions of an organ, the system is preserved from worse consequences; but it is unquestionable that a complete suspension of the sensitive and voluntary powers, when unconnected with lesion of the brain, is a more favourable condition than the state of prostration from shock, indicating a depression of nervous power, so extreme as not to admit of the restitution of healthy ac-

tions to sound organs, or inducing that train of deranged actions, and that preternatural mobility of the nervous system which makes it its own prey.*

We are unacquainted, Mr. T. observes, with the essential nature of the injury termed concussion. Some are of opinion that it is never, when assuming a permanent form, uncombined with cerebral læsion, interstitial or superficial, or effusion. "That, to a certain extent, it is complicated with *compression*, is evident from the symptoms common to these injuries, even when most distinct, and the congestive and serous apoplexy." Physical concussion, however, whether cerebral or spinal, (the result of mechanical force directly applied,) if not at once fatal, offers, upon the whole, a fairer chance of re-action and recovery than the state of extreme prostration following an injury, in which no violence whatever has been done to the brain.

While of the nature of the nervous agent we confess our total ignorance, we entertain no doubt of the fatality of apoplectic coma, or of phrenzy, although we see both states unattended by any other evidence than that which is present in concussion and in shock, viz a plethora of the cerebral vessels.

"We are also satisfied to assign as a cause of the most violent convulsions, the irritation produced by an indigestible mass in the stomach, or the resistance which nature opposes to herself in the operation of cutting a tooth. And the same may be said of all the morbid phenomena of the nervous system, and they are many, about which we are perfectly agreed as to cause and effect; although resting solely for the accuracy of the conclusion upon our reiterated experience of their association, and unable to explain upon any known or admitted principle the manner in which such causes operate and such effects are produced. But if it be admitted that an impression of a certain kind upon the stomach, or upon the gum, will produce fatal convulsions without a vestige of physical injury to the structure of the brain, there is surely no difficulty in also admitting that such states as I have described to follow distant injuries, as well as the phenomena of paralysis, spasm, &c. are symptomatic, in numberless instances, of suspended or deranged nervous action, equally

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"* The difference in respect of the instant effects of injuries happening to persons in a state of unconsciousness from inebriation, sleep, and other causes, is well known, and furnishes an indirect illustration of my meaning. Of two aeronauts who lately fell, owing to the sudden collapse of their balloon, from an elevation of more than a mile in the atmosphere; one was taken up quite dead, the other in a state of syncope, from which she gradually recovered, unconscious of what had befallen her. Although the dead person had fractured his breast-bone by striking the bough of a tree, he had sustained no mechanical injury sufficient to explain his death. His companion had fainted away from terror at his ejaculations prior to their fall, which was the last circumstance she recollected, and her swoon covering the interval of their descent, in all probability preserved her life."

independent of any permanent change in the structure of the organ. I admit, that the altered action of the heart and vessels of circulation forms the most prominent feature in these cases, but this altered action, like that of the respiratory organ, is due to a primary change in that of the nervous function, the effect of which is universal, though especially manifested in the heart; that organ which is most easily excited or depressed by the operation, stimulant or sedative, of the nervous influence, and whose actions cease only with life." 444.

In injuries of the head and spine, the symptoms are so characteristic that the nature of the seat of the lesion may be ascertained although the history should be concealed from us. If, says our author, the cervical spine be broken adjoining the cranial portion, or above the origin of the phrenic nerves, death is instantaneous from paralysis of the respiratory muscles—"but though more protracted, it is an event *equally certain whatever part of the spine is broken.*"

"I say this with confidence, because I have satisfied myself that the nature of this injury has been generally misconceived. It is a veritable transverse fracture or disruption of the medulla, presenting, on laying open the sheath, a distinct solution of continuity, the fissure or interspace exhibiting, in the first instance, broken down medullary substance mingled with coagula of blood; and if the injury be less recent, a process resembling ulceration. The theca discovers no sign of mischief in a flexure sufficient to break or partially dislocate the vertebræ, and rupture the medulla. Compression, which, from its analogy to the case, of cerebral compression, surgeons have concluded to be the cause, seldom exists. Before I ascertained the fact to be as I have above stated, I was surprised to find these symptoms terminating fatally in cases of such partial injury to the bony canal as to present neither a vestige of stricture, nor sign of alteration in the position, direction and appearance of the cord. The mischief is inflicted at the moment in which the injury is received, and is neither perpetuated nor aggravated by any encroachment on the bony canal; consequently the proposal to relieve it by the trephine proceeds, if this statement be of general application, upon an erroneous conception of its nature." 447.

The above passage contains an assertion which we think is much too positive. There are instances on record, and well-authenticated ones too, where fracture of the spine has not been productive of death. If the reader will turn to page 12 of the first volume of this series, he will find the particulars of a case stated by Mr. Harrold, where the spine was fractured—where the patient survived—and where, on dying of another disease, dissection proved the truth of the statement. We need not stop to search for other documents; but surely the above is sufficient to induce Mr. Travers to qualify his assertion. The condition of the spinal marrow, as above described

by Mr. Travers, is pointed out in this journal, Vol. 1, (present series,) p. 10. We are ready to grant that fracture of the spine must be, in 19 cases out of 20. accompanied by irreparable lesion of the spinal marrow; but while a single instance is on record of recovery, after such an accident, we should not entertain the gloomy doctrine which Mr. Travers has here delivered.

When the spinal marrow is actually lacerated or disorganized by the spinal fracture, it was unnecessary for Mr. Travers to account for the fatal issue. The parts below the injury being deprived of their nervous influence soon lose their vital powers, and become incapable of performing their proper functions. The consequences are obvious. With this sketch of the 5th Chapter on the *Theory* of irritation (if it really deserve the name; for of any thing like a theory we see few traces) we come to the last chapter of the work—entitled "the Pathology and Treatment of Direct Constitutional Irritation."

The first section is on "the State of Prostration without Reaction."

There is reason to believe that a regular series of impressions and actions, maintained between the nervous and muscular systems, is indispensible to animal existence—and that an interruption, derangement, or suspension of these is occasionally the result of a sudden and violent shock, mental or corporeal, or of the two combined, which is fatal or recoverable, according to the greater or less intensity of the shock, and the permanency of the condition from which it originated. This Mr. Travers has called "*prostration*," the term being descriptive, without involving any hypothesis. It is a state nearly approaching a cessation of vital action. Whether this be the direct result of the shock, or of an exhaustive effort of nature to meet the emergency, our author will not take upon himself to decide. It is of more importance to know what is best to be done to rally the flagging power and restore the natural harmonies of the system. The state of the circulation is our chief guide.

"If the shock be unattended by hœmorrhage, and, as the argument supposes, by lesion of any vital organ, immediate or accessary, cordial drinks, as spirituous and vinous liquors and compounds, and what are called diffusible stimuli, as ammonia, æther, camphor, &c. with the aromatic distilled waters, and warm and gently stimulating enemas are the most obvious internal remedies. Externally, the stimulus of artificial heat applied to the pit of the stomach and extremities, as by fomentations; and camphorated and spirituous embrocations, or gentle frictions where the state of parts permits, are the

usual means resorted to of exciting the sentient extremities of nerves, and inviting the capillary circulation.

" If any advantage be gained by these means, it becomes necessary to substitute some light aliment for the dram, as gruel, yolk of egg, arrow-root or sago, or to join them, as in jelly, or either of the above substances, with wine or brandy."

We have to bear in mind that it is our object to maintain, but not to force action. The first requires great vigilance on the part of the surgeon. The nurse is incapable of guiding this process—" it is the devotion of a few hours to the life of a fellow-creature."

" Purgative medicine ought not, in my judgment, to be given until the circulation is restored and pretty steady—then a spoonful of castor oil may suffice. It is idly premature to talk about the secretions. Medicines directed to this object cannot act beneficially in such a state of the nervous system, if, as I much doubt, they act at all. It is besides of importance to avoid putting any thing into the stomach but what is essential to support the faultering action of the heart and diaphragm. Since it is upon the stomach we place our chief reliance, we should endeavour by every means to keep it in temper." 457.

We must watch narrowly the patient. If we neglect to supply stimulus the spark of life goes out. As the natural resources come to our aid, we must gradually diminish stimulus and increase nutriment.

The respondence of the circulating forces to an increased supply of stimulus must serve as a caution against over-supply. When the signs of re-action are manifested, its excess is much to be apprehended, if obtained by over-stimulation. Excessive re-action so obtained is " prostration with excitement," in its most perilous form.

" The degree of cerebral affection, independent of any direct injury of the brain, varies so much as to influence materially the symptoms of prostration. The mental faculties are more clouded and stupefied, the respiration is more difficult, and the temperature of the surface sinks in proportion as the cerebral influence is diminished. The muscles are subject to spasmodic and convulsive actions, and the pulse to irregularity and intermissions, in proportion as the cerebrum is, or becomes affected. The ' frissonement' which ordinarily accompanies shock is distinct from rigor.* It is a cerebral affection like the shudder produced by certain acutely painful impressions of the mind or organs of sense. It is not always present, and sometimes wanting where the temperature, to which it seems to

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" * The distinct origin of tremor from mental and physical impressions is familiarly known. ' You tremble, Sir,' said a by-stander tauntingly to one of the unfortunate victims of the Revolution, on his way to the guillotine. ' True, friend,' he replied, ' but it is from cold, not fear.' "

have no reference, is to our sensations reduced. On the other hand, I have often seen it without any sensible coldness of surface." 559.

It is only at the moment of its occurrence that the direct injury of the brain is liable to assume the common characters of prostration. The stupor, convulsions, and delirium, which characterise injuries of the head by their appearance after an interval in which re-action has been fully established, assume a pathological character very different from those identical symptoms occurring at the moment of injury.

"But if after an injury unattended by hemorrhage, in which the head has suffered no direct mischief, the surface retain its natural warmth, and the pulse and the breathing be oppressed, and there be present stupor, convulsion, and inaction of the pupil; blood should be taken in such quantity as to relieve congestion, and its effect upon the symptoms duly noticed. If, on the other hand, stupor and convulsion be accompanied by a contracted and cold surface, and a thready or intermitting pulse,—I have repeatedly seen both states—the cordial is the proper remedy. Greater freedom of circulation, and a consequent diminution of the stupor and convulsion will be found to follow both one and the other practice, as it is judiciously resorted to." 461.

The custom of blood-letting indiscriminately after accidents is so irrational, and has now been so often reprobated by practical writers, that we would hope it is seldom performed. Our author has seen, and so have we, the arm tied up after a fall or a contusion, when the face was pale, the pulse fluttering, and the breathing irregular. Mr. Travers has known operators permit a large artery to bleed before tying it, in amputations unexpectedly performed on very robust subjects. "It is easy to see the motive of such operators, but it is an erroneous pathology and a dangerous practice; the effects attendant upon loss of blood are peculiar, and the reduction of strength by these means has no analogy whatever to that which is brought about by chronic disease, and renders the effects of operations less formidable."

This, we believe, is sound doctrine. Excepting in some constitutions or conditions, where there is a tendency to hæmorrhage or local congestion in some important organ, blood-letting must be a useless, if not an injurious operation, *there being no excitement present.* This last is the great criterion for venesection, and its effects are far more beneficial than where there is *congestion*, without any evident excitement. In these cases of prostration, opium has appeared inadmissible to our author.

No species of injury exhibits the symptoms of prostration in a more marked degree than extensive burns and scalds.

"The remedy upon which I rely in burns inducing this state, is brandy in gruel, in the proportion of one part of the former to two of the latter. This is administered in doses of a table-spoon-ful or two at short intervals, until we obtain a sufficient distinctness and fulness of the pulse at the wrist, with a corresponding improvement of complexion and temperature of the surface. The bowels should be simply kept unloaded by means of castor oil or common injections. If there be much stupor, and the bowels have been previously costive, I prefer to give ten or fifteen grains of the compound calomel and scammony powder. The use of opium, a remedy still generally employed on account of the patient's sufferings, I have abandoned, being convinced by experience, that in small doses it is inefficacious, and in large ones injurious. I have before observed, that pain is a good symptom in burns. I need scarcely observe, that the exhibition of the stimulus requires unceasing and judicious attention; it must be intermitted, if the pulse become bounding, and the patient flush. Nevertheless in deep and very extensive burns of adult subjects, I have frequently found it necessary to persevere in its use for a week or ten days at lengthening intervals; occasionally intermitting, and always gradually withdrawing it. Not only has the partial remission of this plan been in some instances imperative, when reaction was permanently established, but symptoms of the head or chest have made their appearance which required bloodletting, either topical or general; and a smart purge of calomel and scammony I have found on such occasions very useful. In deep burns the external remedy which I prefer, is the turpentine and olive-oil liniment, or turpentine and cetaceous ointment, upon the principle, though not exactly the plan, recommended by Dr. Kentish, of Newcastle, and subject, after suppuration commences, to such changes as the state of the surface may require. This appears to me to coincide advantageously with the internal use of the stimulant. The lime-water and milk liniment, and when suppuration has become abundant, the calamine or chalk powder lightly strewed over the whole surface, and defended by the same or simple ointment thinly spread on linen, is the local treatment which I adopt in superficial burns." 465.

Upon the whole, the results of the stimulant plan of treatment in burns, have been highly satisfactory in our author's hands. After comparing the states of syncope and prostration with each other, and proving a strong analogy between them, Mr. Travers proceeds to an analysis of the individual symptoms.

Nausea. The stomach is affected with nausea and loathing of food by any sudden depression of nervous energy. This we see in sound health, upon the receipt of sudden moral afflictions, &c. The effect is too instantaneous to be attributed to a defi-

ciency of secretion. Mr. Travers believes it is a direct loss of tone—he would say an erethism of the sentient extremities, and consequently exhalent capillaries of the mucous surface, such as we see a sick stomach and other causes produce upon those of the cutaneous surface. The want, or disappointment of food, palls, and often destroys the appetite. Taking food frequently creates it. Suppressed or depraved sensation is one of the most immediate and remarkable effects of irritation. "It is probable that a similar morbid sympathy to that which suddenly unfits the mind for thought, or the body for exertion, is the cause of that disgust in the stomach which constitutes nausea." This is not only a common consequence, but a never failing-cause of nervous depression.

"While the state of nausea continues urgent, no effective re-action can take place. Vomiting is its relief, and is to the oppressed stomach what rigour is to the oppressed heart. The system, after one full vomiting, experiences a blithesomeness as after the removal of an intolerable burthen; but if the unnatural action be renewed, and become habitual, it is as much a sign as a cause of exhaustion." 469.

Vomiting. In muscular organs, Mr. Travers observes, morbid sympathy shows itself in extraordinary action. Thus we explain palpitation, hiccup, vomiting, dysphagia, dysuria, cramp, and spasm.

"The change which a great and sudden depression of nervous energy works in the quantity and quality of the secretions, has undoubtedly a share in provoking the act of vomiting. It would appear that a regurgitation of bile, and its overflow upon the stomach, takes place in these cases as a consequence of the first debilitated, and afterwards deranged or inverted muscular action of the stomach and intestines. Vomiting may be concomitant with a constipated or a lax state of bowels. If it should be attended with constipation, stimulant drastic enemas should be exhibited. If with a free state approaching to looseness, a full opiate enema should be given; and in most cases five or ten grains of calomel with one or more of opium prove advantageous in this state, if retained. A spoonful only of fluid, as brandy and water, or strong tea, or coffee, should be taken by the mouth, and that seldom. A bladder of hot water, a mustard cataplasm, or a blister, should be applied to the pit of the stomach. The more immediate operation of the two former renders them preferable in urgent cases. I have known the calomel and opium pill, and the injection, both cathartic and opiate, selected according to circumstances, stop urgent vomiting, where effervescent saline draughts, acids, alkalies, antispasmodics, cordials, and, in short, every liquid had been ejected from the stomach." 471.

Hiccup. This, which is a more advanced and decided symptom of prostration, is a spasmodic affection of the dia-

phragm, probably from contiguous sympathy with the stomach. We see it generally, but not invariably connected with that irritability which gives rise to vomiting, and both are symptoms almost always with flatulence in the small intestines. Intestinal obstruction, whether directly induced by shock, or indirectly by gangrene, enfeebles, almost to paralysis, the proper muscular motion of the intestines, and thus gives rise to excessive flatulent distention. Hiccup, when of an aggravated character, our author has not known to be arrested—scarcely mitigated. "Its continuance seems to depend, like that of vomiting, on the absolute exhaustion of the nervous energy, the presence of which is as necessary to repose as to action—to control as to excite."

Rigor. This is the most uniform announcement of re-action. It is an attendant upon local irritation under a great variety of forms, and is, indeed, the first sign, in general, of febrile excitement. It is a sympathy of the circulating with the sensorial organ—of the heart with the brain. It is produced, however, by various causes, as cold, moisture, fear, &c.; it is a symptom, therefore, of more or less importance, in exact proportion to the cause which has produced it. Arising from a local inflammatory action, as that of suppuration, it is more important than from a temporary exposure to cold or moisture, which does not go the length of inducing fever. Arising from a direct nervous impression, as syncope, or the prostration which is characteristic of severe irritation, it is most important, as the harbinger of returning animation and action, provided it does not, by its violence and duration, destroy re-action, or render it excessive and exhaustive.

Prostration, with Excitement and excessive Re-action.

Re-action may be gradual and restorative of a tranquil state of the system, as after an ordinary fainting fit—or it may be irregular and violent—in which case the subsequent exhaustion may terminate life. This partial re-action is distinguished by its short-livedness, and the non-attainment of a permanent condition, from that in which (the re-action being complete) the more determined and durable character of the symptoms which supervene, implies that it is the result of a positive and continued irritation, either in itself or in its effects.

"*Treatment of Prostration with Excitement.*

"The name which I have give to this state sufficiently conveys my opinion that it is based in debility. The energies of the system are diminished in proportion as the actions are increased in cases of

excessive re-action. It is a question worthy of our most serious and undivided attention, whether we are in possession of any means of moderating excessive, that is, exhaustive re-action, and of tranquillizing the nervous system, at a time when the greatest disparity exists between power and action. The heart is rather thrilling than fairly pulsating; its semi-contractions are innumerably rapid; the expression is by turns excited and oppressed, wild and comatose; the breathing short, and wanting the relief of sighs. A continued exertion of reason can not be maintained, and after a correct reply or remark the patient wanders into irrationality. The confusion arising from the rapid alternation of symptoms usually denoting contrary states of the system, and the urgent conviction that death must speedily ensue if this tempest be not assuaged, perplex the judgment of the practitioner. After repeatedly witnessing the total inadequacy of remedies employed under the sanction, and in deference to the axioms of schools and school authorities, I must be permitted to remark that in such a crisis, experimental measures supported by any fair hypothesis should be encouraged rather than met by special objections. If reaction become excessive, and the case assume the character of high excitement, the shaved scalp should be frequently bathed with a cold spirit lotion, a large blister should be applied to the nape of the neck, and the bowels should be cleared with pills of calomel and jalap, or scammony, or, if medicine be rejected from the stomach, by stimulant and purgative injections. The propriety of following up this practice, should it be productive of temporary benefit, is a question of the last importance, for such a state is extremely precarious, and often shifts suddenly into that of sinking.

"For the most part, medicine taken into the stomach, if it be not rejected appears to me to be inert. This organ is not in a state to act upon its contents. Pills are thrown up unaltered an hour or more after they have been swallowed. I prefer in such a case to leave the stomach to itself, and give medicine in the way of lavement. The main question is—should opium be administered in this state? I have seen the highest degree of symptomatic delirium yield to an injection containing three drachms of tincture of opium, repeated after four hours; and by a solution of three grains of the extract in a quarter of a pint of gruel, so exhibited and repeated in the state of incoherent wandering, the mind rendered permanently clear and calm, with a corresponding improvement of other symptoms. In whatever way administered, it is only in full doses that this remedy is admissible in the high excitement of irritation; for larger will be required in such a state to affect, much less to control the nervous system. If it succeed in doing this, its employment is attended with the happiest effects. In the low muttering delirium which accompanies sinking, the frequent repetition of a small dose of opium, as a pill, containing a quarter of a grain every second hour, is decidedly beneficial, as I have seen in many instances.

"The virtues of other sedatives are in my observation pretty correctly appreciated. There is, however, one deserving of particular attention, both as an adjunct to opium, and the best substitute

when this is inadmissible. I mean the extract of henbane.* As an anti-irritant it should be given in doses of three to five grains every third or second hour." 479.

Constitutional Irritation from Injuries and Operations.

After quoting several passages from John Hunter, Abernethy, and Sir Astley Cooper, all of whom, especially Mr. Abernethy, appear to view the irritative fever supervening on wounds and accidents as the necessary consequence of the local disease—"so that, unless this (the local disease) can be altered, we can have no hope of amending the constitutional symptoms," Mr. Travers delivers his own opinion, which is, that the nervous affections are to be regarded as a distinct order of morbid actions (apart from fever or constitutional inflammation) occasionally ensuing upon injuries, upon inflammation, upon the exhaustion attending loss of blood, and upon the admission of noxious matters into the blood. He does not mean to affirm that such actions originate exclusively from these sources, but he selects these as affording prominent examples. Neither does he aver that they may not be combined with febrile action—but if this be the case, they so far pervert or suppress the symptoms of fever as to present a very striking exception to Mr. Abernethy's observation, that "sympathetic fevers are indistinguishable from those not depending on injury."

"It will not, I think, be denied by experienced surgeons, that there is a large, and very important class of cases, in which neither the assemblage of symptoms nor the periodical exacerbations and remissions constituting fever, are present, and which, if we treat them in deference to the rules laid down for the treatment of fever, utterly disappoint and mock our efforts. Of these some never arrive at inflammation, others, owing to the shock which the constitution has sustained, sink almost as soon as inflammation is established, from incapacity to maintain it. Some, as Mr. Hunter has observed, go on well, and when we are no longer in apprehension for the part, the constitution, exhausted by the reparative effort, can go no further, and suddenly collapses; whilst others, displaying from the commencement symptoms of high but irregular excitement, betray in every change, local and constitutional, an excessive and destructive re-action. The first stage of constitutional irritation ensuing upon injury or inflammation, by no means exhibits that provident faculty of nature which is so much insisted upon; for the tumult of the system, proceeding from the sympathy of the whole with a

"* In the ruffled states of the system generally, but especially in the over-active state of the vascular system, there is a charm in the operation of henbane, altogether peculiar. It is feeble as an anodyne, feebler as a soporific, but not 'poppy nor mandragora' soothe and still so unexceptionably as henbane."

part, is a state with which restorative action is wholly incompatible. The first stage of local irritation or inflammation illustrates this fact. The actions which ensue aggravate the mischief rather than tend to its relief, insomuch that we have often more concern about what is to follow than about what is past, and would gladly compromise for a result. Nevertheless it is not inconsistent to regard the processes, of which these form essential preliminaries, as serving a salutary purpose. But assuredly the first actions, both of the constitution and the part, are those of angry disturbance; and our first business is to compose and allay them. Having fortunately succeeded in this, the actions which require for their institution and maintenance an unusual but not unhealthy vigour, commence as a natural consequence." 487.

Our talented author justly observes that the removal of a mutilated limb, provided the interval of time be so short as to identify the operation with the injury, anticipates, or, at least, infinitely diminishes constitutional irritation. He has, it is true, instanced some cases in which fatal irritation has ensued upon amputation for recent injury—but such cases are rare; while it would be easy to adduce numerous instances leading to an opposite conclusion. "The lapse of a considerable interval in which the system either continues prostrate, or, having in part recovered, acquires a morbid irritability, is exceedingly prejudicial." The recommendation, from respectable authorities, of delaying an operation, on the ground that a certain inurance to confinement and suffering, and the establishment of a suppurative process, so as to gradually conduct the constitution to a state resembling that of chronic disease, will not now be attended to, after the experience gained in the late war. The continued irritation, in fact, of the injury infinitely augments the danger, and the state so much desired and so confidently promised never arrives, in the majority of cases.

"The treatment of deficient re-action and of that which is excessive, resulting from injury or operation, prior to the commencement of inflammation, should adapt itself to the symptoms present in the two states, with this general qualification, that both are evidences of deficient power, and that existing circumstances are often sufficient to create the diversity in the order of symptoms. Thus, hemorrhage determines the one or the other according to its extent. We find the one commonly passing into the other state; and we discover, where in the absence of hemorrhage the former prevails, that the person has been habitually addicted to abuses of constitution; and where the latter, that some strong point of aggravation of the injury, or some extraordinary mental impression explains its predominance. This, it can not be denied, has often a marked influence—a maniacal tendency for example, or even a high degree of irritability." 490.

In respect to operations for chronic disease, the presence or absence of visceral disorder—the previous habits of life, &c. are points for consideration, and must guide us in the propriety of proposing or dissuading from a surgical operation. The *medical* treatment, also, both before and after an operation, is of much more consequence than the operation itself—though it is a point too little attended to, either by the student or the operating surgeon. We recommend the following passage to the student who neglects his medical studies for the purpose of running from hospital to hospital, to get a glimpse of operations which he may never be called upon to perform—or, if performed, which he will not know how to treat afterwards.

"The practice of performing a serious operation, and leaving the after-treatment to others, has, in my knowledge, repeatedly proved disastrous. The medical treatment, a duty not less responsible than the operative, belongs to the surgeon, and indeed, to be employed merely as a handicraftsman, conveys an imputation at which the dignity of a scientific mind revolts." 492.

If students were to attend strictly to the patients in hospitals, after operations, they would learn much more useful knowledge than they do—but the knife is so captivating, that they will run from one end of the town to the other to see it brandished, and seldom afterwards take the pains to see the result. Yet they will never learn to operate by the sight of operations. A good knowledge of anatomy, and the sight of a few operations, will enable them to do much more than a slight anatomical knowledge, with the sight of a multitude of operations.

Constitutional Irritation from Inflammation.

Inflammation is strong and effective, or the contrary, as it is free from irritation or mixed with it. Sympathetic fever may be of the pure inflammatory character, bold and powerful, or it may be of vacillating and weakly character. It may be sympathetic synochus, or sympathetic typhus. The *latter*, says Mr. T. though it differs in character from the former, is still a mode of sympathetic fever, and hence is treated, primarily at least, by medicines addressed particularly to the secreting organs.

"The irritation set up by inflammation has generally more or less of febrile action blended with it. But irritation, in my notion of the term, is not fever under any modification. Fever requires, and as Mr. Hunter justly observes, shows powers of resistance. In irritation we have no determinate or continued train of actions. It is 'every thing by turns and nothing long.' Teachers appear to me to

confound irritation with inflammation or fever, and because they sometimes co-exist, to conclude they coincide. Irritation may be a symptom of fever, as fever may be an effect of irritation, but they are originally and essentially distinct forms of disease, and either may exist in the absence of the other.*

"Sympathetic fever is a healthy re-action of the constitution, without any impairment of its powers, such as they are, shown in the increased energy of the vascular system. If the natural powers of the constitution be deficient, the fever assumes the low or typhoid character, and in its progress gives out indications of the disturbance and distress of the nervous system from its inability to support the increased action of the vascular; but the nervous affections are secondary, strictly symptomatic of the fever, whatever be its origin, and therefore indistinguishable from those which attended upon low fever in the absence of injury." 494.

In the treatment of inflammatory fever ensuing upon complicated injury, the chief indication, Mr. Travers observes, is to tranquillize action without materially diminishing power. "We ought not to be alarmed at fever, but at the want of it." We ought not to use any rough and permanently depressing means to put it down, neither blood-letting nor continued profuse purging and sweating.

"To moderate extraordinary action it is sufficient to keep up such a determination to the secreting organs, as prevents their becoming so obstructed as to increase fever. I am persuaded that practitioners are generally over anxious to cut short sympathetic febrile action, and treat fever from sudden and artificial, too much as they treat fever from gradual and natural causes. The great bearing of the constitution, under a sudden call upon its powers, is decidedly upon the nervous system. To a certain extent the existence of fever, for which an obvious and adequate cause appears, is less trying to that system than the employment of such measures as are necessary to its sudden abridgement. For if the inflammatory action be marked and vigorous, the nervous, which supports it, is strong and inirritable, and the former cannot be suddenly pulled down without a serious encroachment upon the strength and steadiness of the latter." 496.

By these observations Mr. Travers does not mean to adopt the Hippocratic practice, lately so general on the continent, of leaving every thing to Nature, and of passively watching

* "I am aware that in this remark I have to contend with the difficulty to which all writers on pathology and on many other subjects are exposed, arising from the vague and various meaning affixed to terms in common use, according to their vulgar acceptation. Thus if any reader should be startled at the idea of fever devoid of irritation, I trust to his discrimination and candour to do justice to my distinction between irritation as an archetype or original disease, and irritation as a symptom."

her operations whether salutary or the contrary. He only means to say that, the less violent our measures, the better. Nervous power is much more easily depressed than raised. Irritation is a very possible result of treatment as well as of malady—for by those means which lower the system too rapidly, we incur the danger of converting inflammation into irritation, and thus of destroying our only medium of recovery.

Some management is necessary in respect to the local irritation. The part injured should be kept in an easy position, with light and soothing applications. The swelling and tension, which are the signs of local re-action, should not be aggravated and rendered a source of additional irritation, by too nice adjustments and contrivances. The application of lint, moist or dry, to a fresh wound, quickly becomes an irritant; and adhesive plasters, circular bandages, and splints, applied as they too often are, operate as strictures or ligatures.

"Plugging a fresh wound to force suppuration, or strapping it to prevent that process, are equally liable to be followed by injurious consequences. The attempt to render complicated wounds simple by leaving them in the original close dressings for many days in succession, has proved a common, and sometimes fatal mischief. I have seen more than one case in which the constitutional irritation arising suddenly, and proving fatal in a week from the injury, was distinctly referable to a diffused erysipelas and gangrene, set up by such local irritation and stricture. A sufficient inspection of the part at intervals of two days, to satisfy an experienced eye of its well doing, may be accomplished, not only without detriment to the process of healing, but with manifest relief to the patient, and is a widely different thing from handling and disturbing the position of parts, against which I would be among the first to protest as uncalled for and injurious. Penetrating wounds attended with hemorrhage, and comminuted fractures with extensive injury of the soft parts, and in the vicinity of large joints, are especially the cases which present themselves to my mind in offering this remark." 498.

The change which parts undergo in passing from a state of health to a state of gangrene, is not greater, our author observes, or more remarkable, than that of the nervous system from a healthy condition to that of extreme prostration. Ulceration and acute gangrene sometimes exhibit the state of excessive re-action, terminating in exhaustion. Mr. Travers attended a young West Indian lady who had a blister applied to the knee-joint for a strumous inflammation. It was purposely irritated to suppuration, with the intention of being kept open; but the constitution being feeble, an ulcerative process supervened, and rapidly destroyed the integuments down even to the

ligaments. Stimulants and nutriment failed to save the young lady's life. The following practical inference terminates this section of the work.

"The general inference which I would draw, relating to the treatment of sympathetic irritation, as compared with that of sympathetic fever, is as follows, viz. the symptoms of excitement belonging to the first, although resembling those of the second, are in point of fact allied to a powerless state of constitution, and will not bear to be treated after the same manner. Blood-letting, general and topical, and a forced increase of the secretions by active forms of medicine frequently repeated—the appropriate remedies for high inflammatory fever—are calculated to aggravate, in an alarming degree, the symptoms of irritation. In partial exception to this general observation, however, it sometimes happens that the effect of suspended biliary secretions is evidenced in an obstinate confinement of the bowels, and in this case the relief of the symptoms is not obtained until copious bilious evacuations have been procured. The aloe or colocynth extract, or blue pill combined with calomel, and repeated as required, are the best medicines with which I am acquainted for relieving this state. Alcohol, ammonia, æther, camphor; opium and henbane; and bark in substance, decoction, and tincture, are the articles upon which, in the circumstances respectively indicating their use, I believe most reliance may be placed in the treatment of acute sympathetic irritation." 501.

Mr. Travers had not, we suppose, made trials of the sulphate of quinine, in such cases, when this part of the work was composed. Its salutary effects, we are confident, will be found far superior to those of any of the medicines above enumerated.

Constitutional Irritation from Loss of Blood.

Mr. T. is afraid that prostration, pure or mixed, the result of hæmorrhage, has not been an uncommon product of the intemperate use (or rather abuse) of the lancet, the practitioner's judgment having been led astray by the temporary relief obtained even to the last by the detraction of blood in acute diseases. Some persons cannot bear the loss of blood—it gives rise to prostration, attended with convulsions, in which the circulation fails so alarmingly as to require watching for several hours, and the repeated administration of stimulants to restore it. Here our author passes a high, and a well merited eulogium on the essay published by Dr. Marshall Hall, "On the Effects of Loss of Blood," "which, (says Mr. Travers) for the general accuracy of its descriptions, and the reasoning by which they are illustrated, is, in my view, highly creditable to the author's talents as a pathologist."* We have given such

* We are happy to find that this talented physician has taken up his

an ample account of Dr. Hall's essay, in a former number, that we cannot revert to it in this place.

The effect of hæmorrhage upon the nervous system is two-fold—immediate and remote.

"The *immediate* is syncope, and is in proportion to the suddenness rather than the quantity of the hæmorrhage; hence the relative effect of the same loss in quantity is greater and more frequently fatal from the large trunks and near the heart, than from the small vessels and at a distance from it. The *remote* effect is to precipitate and contract the actions of the heart, and is in proportion to the quantity lost, as in frequently recurring hemorrhages or a slow protracted hemorrhage; and this effect as well as the former, depends upon such an atony, from deficient excitement, of the nervous system, as incapacitates it for maintaining the actions of the vascular." 506.

If a single hæmorrhage, Mr. T. observes, has been so great as to deprive the system of the material whence nervous excitement and nutrition are derived, "the transfusion of a portion of human blood seems a fair and rational expedient," since it is clear, from Dr. Blundell's experiments, and subsequent trials, that a much smaller quantity supplied than that which has been lost, will suffice for this purpose. "But if the system be, at the same time, so depressed by the shock, or previously so exhausted by hæmorrhages or by any chronic disease, that the loss of a moderate quantity of blood induces the state of pure prostration, it is extremely doubtful if a fresh supply would renovate its powers, or be attended by any beneficial effect." In this sentiment we entirely agree.

"When prostration with deficient re-action is the result of hemorrhage, support by nutriment in the most assimilable forms, given in moderate quantities at short intervals, and by nutritive clysters, is the most important indication. To obtain the equal influence of the attenuated circulation and to tranquillize the nervous system, a pure and fresh atmosphere, the preservation of a natural and warm surface, the sedulous exclusion of every cause of excitement, and a very cautious use of vinous stimuli, the danger of serous effusion being much augmented in this case, are the only means left us to pursue." 507.

The fifth and last section in this excellent work, is on "constitutional irritation from the absorption of animal poison," and the greater part of the section is occupied with observations on the cases of Dr. Bell, of Plymouth dock-yard, and Dr. A.

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residence in the metropolis, where his abilities will have a more ample scope than in a provincial town. We prognosticate that this zealous and gifted physician will experience that reception among his brethren here, which his merits deserve. Public favour is sometimes lavished on those who are little entitled to it. It will not, in this instance, however, be ill bestowed.

Thomson of Sloane Street. As we have given such detailed accounts of these cases in preceding numbers of this Journal, it is unnecessary to dwell upon them here. The narrative of Dr. Bell's case confirms our author in the belief that he was the subject of a distinct aud specific irritation, viz. that of a poison of which, allowing for mental and other influences, he would, at any other time, have been a sufferer—perhaps a victim.

"If this opinion be correct, it follows that the local action proper to this state is an unessential feature of the disease with which we have to contend; the disease itself consisting in a direct prostration of the vital forces, marked by an excitement of the most transitory description, and rapidly terminating in collapse or exhaustion." 514.

We may refer to our review of Dr. Butter's work, vol 4, p. 70, for nearly similar sentiments. In respect to Dr. Thomson's case, published in the Medical Repository for April, 1825, Mr. Travers considers it a clear case of thecal puncture and inflammation going on to suppuration, "in which the ordinary signs of constitutional irritation were modified by the existing state of health, which was considerably below the ordinary standard." Again, our author observes, "a comparison with the genuine cases of absorption will demonstrate that *this* was not one of that class; and a reference to some of the cases which I have related, of fascial and thecal inflammation will sufficiently account for the impression made on the nervous system." This distinction, we apprehend, will not be admitted by all persons, nor by the patient himself, Dr. Thomson, who evidently attributed the phenomena to a virus received into the system during dissection.* When we consider, indeed, that, in the course of 12 hours after a scratch, so minute as to pass unnoticed at the time it was made, there arose a train of *constitutional* symptoms of the most formidable description, it requires no small stretch of the imagination to attribute all this to local inflammation of theca or fascia, without any reference to a poison received. Mr. Travers, in fact, acknowledges that "the symptoms of extreme constitutional irritation arising from simple and specific causes are not in their nature distinguishable, without the aid of *certain associations* of local characters." In the first place we conceive that few, indeed, would be able to satisfy themselves respecting a distinction so extremely difficult to make:—and, in the next place, if they were able to discriminate by means of "certain associations," and where the "symptoms of extreme constitutional irritation"

* Vide Vol. 3 of this series, p. 253-4-5-6.

were so much alike as to be indistinguishable from each other, would the treatment differ in the two cases? We apprehend that the extreme physical and intellectual prostration presented in Dr. Thomson's case, must have required the same cordial and stimulant treatment, whether the cause were thecal inflammation or a specific virus. When the diagnosis turns on so nice and difficult a point as that represented by our author, we believe that symptomatology is our surest guide, leaving etiology, for a time, out of the question—especially when great uncertainty prevails respecting the nature of the morbid cause.

Mr. Travers introduces the details of a case in this place, which is of recent occurrence, and "of much practical value, as it illustrates more forcibly than any, the supervention of the specific upon the simple inflammation, and a variety of the former, probably thence resulting." The case is rather minutely detailed, and we must abridge it materially.

Case. A young gentleman of delicate and irritable habit, grazed the point of the fore-finger of his right hand, with the blade of his scalpel, while opening the body of a man, three hours after death from extravasation of urine. He immersed the part in water, and proceeded with the examination. In returning home he shivered, but regarded the circumstance as occasioned by the cold air, (January, 1826.) His digestive organs had been, for some time, out of order—and his mind was anxiously bent on his studies. Next day (8th January) he felt unwell—kept the finger immersed in cold water—and took a calomel pill going to bed. He passed a restless night, and next morning the absorbents of the arm were inflamed up near to the axilla. The fore-finger was swelled, tense, and painful on pressure. An incision down to the bone was made at the tip of the finger, which bled freely. He was now looking and feeling very poorly, with a hurried pulse, depression of strength, and anxiety of mind. The evacuations were found to be unhealthy, and therefore three grains of calomel and a grain of opium were given at bed-time, followed by a morning aperient. On the 3d day he was rather better—took some liq. ammon. acet. mist. camph. and spir. æth. nit. in the day, repeating the calomel and opium at night. Hand and arm freely bled by leeches, *4th day.* Considerably more sunk by constant nausea and retching. Some carbonate of ammonia and laudanum added to the medicine prescribed the preceding day. Extract of henbane at bed-time. There was diffuse swelling with inflammation of the arm, the inflammation of the absorbents having disappeared. *5th day.* The erythema had spread, and there was a patch of inflammation on the biceps—the general symptoms the same, the nausea still continuing, with occasional hiccup and wandering delirium. *6th. day.* The inflammation had extended to the neck, and over a small part of the pectoral region. Large vesications had appeared on the back of the elbow and hand. Leeches

again applied to the inflamed surfaces. Three grains of carbonate of ammonia and one of opium hourly—camphor draught to be continued—anodyne fomentations. *7th day.* More composed—pulse 120, soft and powerless—tongue getting brownish—hiccup—erythema faded on the hand and arm, vivid on the chest.

We need not farther detail this case; the symptoms gradually increased, and this unfortunate youth sunk on the eleventh day from the receipt of the injury.

Another gentleman in good health assisted at the same dissection. He punctured his finger—the wound inflamed—but yielded to a poultice and some opening medicine.

Our author has adduced this case for the purpose of showing an additional instance of the combination of the simple and specific action, or rather, how the latter may succeed to the former, and suspend it after an interval of two or three days.

"The possible and not very unfrequent co-existence of the signs of simple inflammation, or in the commencement of these cases, their separate and exclusive appearance, renders the diagnosis embarrassing, and the additional circumstances of their having a common origin from dissection, and the constitutional symptoms being, in some instances indistinguishable, greatly add to the embarrassment. At one time doubts existed as to the real nature of the case just detailed. They gave way however to the weight of evidence in favour of its specific origin. *But the existence of a doubt confirms the important fact, that the state of constitution indicates a mode of treatment in all respects the same.*" 527.

The latter part of this passage, which we have taken the liberty of marking in italics, confirms the sentiments which we expressed a page or two back respecting the treatment. The following passage is still more explicit on this important point.

"A poison admitted by a wound or raw surface, and a poison admitted by the lungs, are equally excitants of a specific constitutional irritation; which shows itself in the latter case in a specific mode of inflammation, if the individual should unhappily become the subject of the slightest injury. The distinction between the erythema of poison, and that mode of inflammation following a wound, appears to me to be this: that the first is distinct from the mechanical condition, the second grafted upon it. The first is the action of the poison viâ constitution, showing itself in one or more points upon the line of parts by which it has entered the system; and whether it takes place in a visible shape or not, depends upon the intensity of the poison, the powers of the constitution, the duration of life, &c. The second is the conversion of the healthy into an unhealthy inflammation, depending either upon a peculiar local irritation, or upon the peculiar temperament or circumstances of the individual. Hence the analogy is so close between the cases of constitutional origin, direct and indirect, as in some rare instances to render the distinction, so far as the constitution alone is concerned,

inappreciable; but upon the pathology and treatment this analogy reflects a valuable light, inasmuch as it warrants the inference that the resemblance is essential, and that a similar rationale, and by consequence a similar plan of treatment are to be adopted. Accordingly, the history of these cases and of the effects of different modes of treatment, confirms the inferences, that they are accompanied by a remarkable depression of nervous energy, showing itself either in pure prostration or prostration with excitement, and exhaustion; that all reduction of power is a violation of the leading indication, and that the antiphlogistic measures adapted to simple inflammation and its sympathetic fever are therefore positively contra-indicated; that the action of the arterial system requires to be sustained in order to its being equalized; that pain and every incidental excitement is, if possible, to be assuaged, and repose, by whatever means, to be procured." 529.

A considerable number of these unfortunate cases have now been made public—and it is probable that a still larger number are kept in the back ground, for reasons more selfish than scientific. It is remarkable, Mr. Travers observes, that, of those presenting the *specific* character, the instances of recovery have been very rare—perhaps not more than one in seven: while, of those "blended and confounded with them of absorbent and glandular inflammation, including the cases of cellular and fascial inflammation, and of suppuration in veins and thecæ, the fatality is certainly not one in twenty." We coincide with our distinguished author in the following conclusion to which he has come.

"That the effect of the introduction of a virus, whether secreted by serous membranes under inflammation, or formed in all animal bodies during the first stage of decomposition, is local inflammation, and the production of a similar virus in the inflamed part, as Dr. Thomson thinks, appears to me a conclusion unwarranted by the majority of the cases which I select as examples of the specific disease. For in few instances can the part wounded be said to undergo inflammation, at least sufficient for secretion; and the characteristic inflammation usually takes place at a greater distance of space, and at a shorter interval of time, than would, according to analogy and probability, happen, if the virus were a morbid poison elaborated in the wound. The case of a vesicle or pustule formed on the wound, is probably an exception to this remark." 531.

In respect to local diagnosis, Mr. T. observes that, in no case which has fallen under his notice, has the sign of pain more or less acute, and of fulness and tenderness on pressure of the breast or shoulder, been wanting. The erythema may not show itself till the fourth or fifth day; but it more frequently developes itself on the third. It appears on the pectoral, scapular, or iliac region, running towards the median line, and bounded by it.

"It is not symptomatic of deep-seated inflammation, nor does the cellular membrane take on the full suppurative action, until the disease has attained considerable duration, and then diffusedly. I regard this, including the stages of pain, puffiness, and efflorescence, with or without the vesicle, as the surest local and visible character of the disease. Its locality in the first instance determined, by the passage of the irritant into the circulation, corresponding to that of the previous pain. As it becomes more completely a constitutional action, after the lapse of some days, it is subject to become erratic, and appear not only on the flank or loin on the same, but even on the opposite side of the trunk, or opposite limb, without any obvious cause of local irritation." 532.

Many plans of local treatment have been proposed for dissection wounds. Dr. Pett's case is a warning against the use of caustic after the commencement of inflammation and pain. It is clear that if an escharotic is to be applied at all, it should be at the moment of the injury, considering the rapidity of absorption in these cases, as compared with that in hydrophobia. The following is a sensible observation.

"Since it cannot be known, at the moment of infliction, what may be the nature of the injury, it is as little to be expected that young men will habitually apply a caustic, on the instant, as that they will smear their hands with oil or pomatum, or clothe them with gloves before handling a body. Neither are such things, in my opinion, worthy of men in earnest in their pursuit, but I must take leave to deprecate the absurd and affected hardihood of persevering in dissection, and especially in visceral examinations, with recently cut or chapped fingers affording every facility for absorption; and thus needlessly exposing themselves to the imminent risk of a disease from which so few, even of the most robust, escape with life." 536.

When inflammation is once set up, the application should be simple and soothing. If much tension be present, the vessels should be emptied freely by a deep incision through the line of the wound, and then the part enveloped in a poultice. For the erythema of the arm or trunk, folds of linen moistened with the diluted liq. plumbi, or liquor ammoniæ acetatis, are probably the best applications. If, in protracted cases, the cellular membrane becomes much loaded, incisions are beneficial, to quicken the slow and imperfect suppurative action. It appears to our author, as indeed to every judicious and observant practitioner, that no rules for the constitutional treatment, as applicable to all cases, can be laid down—in fact, that we should equally err in uniformly prescribing a stimulant or a depressing treatment.

"As regards the first, I feel warranted in saying that the plan of early support formerly adopted in these cases of animal poison, under the notion, however erroneous, of a rapid putrescency of the

fluids, is more consistent and rational than the antiphlogistic, which assimilates them to inflammation. Venesection, it is true, is one mode of relieving congestion; but a more pernicious one could not be devised, where the congestion is the obvious result of a sudden and extreme depression of the nervous power." 537.

The above sentiment is almost precisely what we have always professed, when treating of this subject in various parts of this Journal. Mr. Travers remarks that, should a case present itself bearing the specific local character, in which acute pain was combined with steady contracted pulse, and other signs of inflammatory excitement, he "would consider the trial of copious blood-letting in the commencement indicated, nay, called for;" but he never met with such a case. Where the use of the lancet is prohibited, pain should, if possible, be allayed by opium. Our author wisely advises the practitioner to be guided, not by preconceived opinions, but by existing indications. When he speaks of existing indications, he does not mean to refer to this or that symptom, but to the assemblage of symptoms. With the following extract we shall conclude our extended analysis of this work.

"The impression arising from a belief that a solitary symptom is sufficient to constitute a guide, is a most mistaken one: for example, a rapid pulse, if frequency be considered an insuperable objection to tonics; a wandering or asthenic delirium, if, as is generally thought, it forbids the use of opium; a white-furred tongue, which I have heard intelligent physicians declare prohibitory to the exhibition of bark, &c. As to frequency of the pulse, it is oftener a sign of weakness than the opposite; and I know no period of acute irritation at which it would be possible to institute a tonic regimen, if this amount to a prohibition. In local inflammations, the benefit of astringent and tonic remedies is lost, if their use be deferred until the elevated sensibility of increased action has entirely subsided, and the action is becoming habitual to the part or chronic. And so it is with the constitutional excitement of irritation, which begins in weakness. It is the active and sensitive stage alone, upon which any favourable impression is to be made by medicine. I offer this observation to enforce the distinction between action as a sign of power, and action as a proof of weakness. Again, for the state of mild delirium, or rather the state of prostration, of which it is characteristic, my experience teaches me that opium, in certain proportions and combinations, oftener than any other medicine, affords a remedy. If a peculiar state of the tongue, whatever that may be, counter-indicates the early employment of bark and ammonia, it sets aside the remedies of which I entertain a higher opinion than of any, in the prostration of irritation from external causes.*" 541.

"* As I have mentioned bark—in a firm belief of the virtues of which medicine I agree with Mr. Hunter, a belief founded on some experience—it is right to say that my mind is yet undecided on the actual and comparative

It is of very little consequence either to the public or the author, what may be the opinion of a reviewer respecting a work, provided the analytical delineation be copious, and the author's sentiments impartially and fully stated. Whenever the critic means to injure an author and deceive the reader, he goes upon a diametrically opposite plan. He is either very sparing of quotations, and liberal of his own opinions—or he selects only the weak points for exhibition, and draws a veil over every thing of a redeeming quality. It is all "carbone notamus," with such reviewers; and there is, unfortunately, a strong principle in human nature, which appears to receive pleasure both in the infliction and contemplation of injustice—hence the most flagrant and illiberal criticisms are those which excite most *amusement* in the minds of the readers. But amusement and instruction are two different things. The former affords a momentary gratification, and is not again referred to—indeed, by its very nature, it will not bear repetition. But with instruction it is otherwise. It will not only bear retrospection, but improve in value on reflection. It is under this impression that our analytical labours are conducted, believing that by setting forth a full, fair, and impartial analysis of a work, we act the part of a good judge, who exercises *his judgment* most, in laying before the jury such a faithful representation of the case as enables *them* to pass the final judgment between the two parties. That we have enabled our readers (a great majority of whom can never see the original) to form a just estimate of Mr. Travers's work, and consequently of his opinions and practice, we hope will be acknowledged—and this is the desideratum on all sides. As we have, on several occasions, and on particular points of doctrine or practice, expressed our individual opinions freely, whether as corroborating or opposing the sentiments of the author, so we cannot see the necessity, or even the propriety, of giving any thing like a summary decision at the conclusion. This final sentence, indeed, is the proper attribute of a higher tribunal—the PUBLIC; and its assumption is a dangerous prerogative, more frequently claimed with arrogance, than exercised with talent and integrity by the critic.

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merits, in the more urgent cases of this class, of the preparation lately imported from France, under the denomination of sulphate of quinine. It is the misfortune of every new remedy to be put upon the forlorn hope, and thus to encounter a very unfair mode of trial. Its efficacy, however, in the cure of ague appears to be satisfactorily established.

VII.

Principles of Dental Surgery; exhibiting a New Method of Treating the Diseases of the Teeth and Gums; especially calculated to promote their Health and Beauty, accompanied by a General View of the Present State of Dental Surgery, with occasional References to the more prevalent Abuses of the Art: in Two Parts. By LEONARD KOECKER, Surgeon-Dentist, Doctor in Medicine and Surgery, &c. &c. 8vo. pp. xxii, 445, London, 1826.

Mr. KOECKER has divided his Work into two parts; and, as the arrangement is convenient, it shall be adopted in the present article, wherein we propose to consider *generally* this author's "doctrines," and to exhibit *particularly* a concise view of the principles which ought to guide the surgeon-dentist in his treatment of disease in the teeth.

PART I. CHAPTER I *General Observations on the Present State of Dental Surgery, and the Developement of the Author's Method of Treatment.* In the seventeen pages he assigns to this section, Mr. K. avers, that the doers of "dentistry" in Germany, France, America, and England, are bungling, unskilful, and injudicious operators; that the abuses of dental surgery are "quite the order of the day," and by no means confined to the practice of the lower orders of *our body*, but their effects are very frequently to be observed in that of dentists generally considered of the first rank, highly esteemed by the public, and held of good reputation even by the medical profession; that there is no branch of the healing art so little founded on scientific principles as the dental surgery, this having been so long in the hands of illiterate men whose names, he says, are loaded with high-sounding titles; that empirics are the natural offspring of the imperfection and novelty of a science, but the proper and most effectual remedy against empiricism, is an improved knowledge of the principles of the dental art, as a branch of surgery; and that the author does not hesitate in the least to assert it as his sincere opinion, that dental surgery, in the manner in which it is practised at present, is really a great positive evil. These comprehensive statements are illustrated by five cases which Mr. K. we doubt not, regards as being very instructive as well as impressive; for, he declares, their publication arose entirely from his great anxiety to promote the substantial interests of the profession and to put a stop, if possible, to the pernicious doings whereby it is so lamentably disgraced. Most willing, however, as we are to regard Mr. Koecker's manner as well as his matter with indulgence, it is every way requisite that, in admitting his having shown this much, we require to be understood as having a perfect recollection of the relations which exist between unmeasured assertion and the kind of evidence that leads to inductive demonstration.

Each of the learned professions—we feel humiliated by the admission—has ever been pestered by the intrusions and mischievous absurdities of quackery; but there would be great unreasonableness, and manifest injustice as well, in concluding, from this circumstance, that most, or even many, of its members should be considered as rude and Charlatanical pretenders. Entertaining this view of the case, therefore, and considering

the "professors of dental surgery" fairly entitled to the benefit of being appreciated every one by his own merits, we can not pass from reminding Mr K. that his "reprobation" of his "professional brethren" is too indiscriminate, and his mode of determining an estimate of their art rather uncharitable and precipitate. Without adverting, on this occasion, to the systematic or elementary works on anatomy, physiology, and pathology, which necessarily include the subjects of dentition in most of their healthy and morbid relations, we must direct his attention to a multitude of monographs on the natural history, functions, and diseases of the teeth: many of which, besides exhibiting the clearest proofs of their authors' mechanical excellence, are distinguished, in a pre-eminent degree, by the philosophy of scientific observation and research. Our advice to Mr. K. therefore, and our request of our readers is, that they examine, among the rest, the writings of Strimard,(a) Hoffman,(b) Fauchard,(c) Lavani,(d) Schaeffer,(e) Jourdain,(f) Hunter,(g) Campani,(h) Blake,(i) Broussonnet,(k) Fox,(l) Tenon,(m) Bunzger,(n) Duval,(o) Lavagna (p) Gallette,(q) Laveille,(r) Mielan,(s) and Serres,(t)* and compare impartially with theirs the number and value of Mr. Koecker's discoveries and improvements in dental surgery.

"In publishing this manual, the author has been *partly* influenced by the desire of proving that he is not unworthy of the confidence with which he has been honoured."—"The principles on which he has for many years practised this art, being essentially different from any hitherto known, and considering those which are commonly received as being founded on superficial views and pernicious errors, he has deemed it useful to give a detail of his peculiar ideas in such a manner as, he trusts, will not only be found to deserve some attention on the part of the professional reader, but also at the same time, calculated to prepare the public mind at large for their reception." P. vii.

Animadversion is not the sort of thing whereof we are particularly enamoured; nevertheless, since Mr. K. has chosen throughout his volume to be so very severe on others, he can not object to our taking occasion, here and once for all, to remind him, that even the most generous examiner might find just reason to accuse him of what might be considered too indiscriminate censure. This much we feel ourselves obliged by every duty to say; but at the same time we add, with infinitely greater satisfaction, that Mr. K.'s book comprises much instructive matter, which we hope, one day, to see divested of all its cumbersome and offensive accompaniments. Since, however, by the advice of his friends, he has ventured to make public the "result of his experience" "for the advancement of the profession and the best interests of humanity," we shall, out of gratitude for his good intentions, inform him that from the "*medical* profession," he may be assured of the most compassionate indulgence; but that, from the "professors of dentistry," if they think of paying him in kind, he may expect more hard words than kindliness and candour: 'tis a good rule in all manner of speculation, especially in authorship—*veniam quam petimus damusque vicissim.*

CHAP II. *General Principles of Dental Surgery.*—Mr. K. regards this as the "*science*" of preventing and curing the diseases, and of preserving the health and beauty of the teeth and of the parts connected with them: it includes also the "remedial treatment" of defects, or loss of parts injurious to health, general appearance, and to the power of distinct articula-

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* See notes at the end of this article. They were too long to be inserted in this place.—*Ed.*

tion, and, consequently, the practice of this "very useful *art*" should be established on a solid foundation. To obtain these important objects, he says it is indispensably necessary to have a minute and comprehensive knowledge of —the natural history of the teeth and gums in their healthy state—the diseases to which they are subject, the symptoms of these, and their remote as well as proximate causes, at the successive stages of their growth—the connexions, sympathies, and influences of the teeth, gums, sockets, periosteum and the maxillary bones, generally and individually, upon each other, in their sound and morbid states; and especially those of the first set upon the permanent teeth—the effects produced on the teeth and contiguous parts by disease of particular structures and disorder of the constitution, at different periods of their developement—the medical and surgical remedies, and their proper application in treating unhealthy teeth—and the surgical and mechanical means required by the surgeon-dentist, with a general knowledge of the collateral mechanical arts.

This arrangement of "Principles" has the merit of being very distinct as well as judicious: it is followed, moreover, in the remaining six chapters of this part, with many sensible, although *general* remarks on each of these principles, in the form of explication and doctrine; but, as the author has entirely omitted all reference to the sources from which the *particular* philosophy of his favourite "science" can be drawn, our readers will perceive the value of the select bibliographical list which this article contributes to their service. Mr. Samuel Cooper would essentially promote the "advancement of his profession in connexion with the best interests of humanity," were he to introduce, into his most useful Dictionary, a section on the organization and diseases of the teeth: an article on these subjects would increase the value of that excellent work which, decidedly above all others, gives the best and most comprehensive view of the principles and practice of surgery.

Chap. III. *General Remarks on the Natural History of the Teeth and their Relative Parts, with Pathological Observations.*—Our author confines himself, in this chapter, to such observations as are immediately subservient to his present inquiry, and refers the reader to the works of Hunter, Blake, and Fox, for a more extended examination of this "important study." At p. 37 he remarks—

"From the rudiments of the temporary teeth those of the permanent are formed: at an early period of their formation both are firmly and closely attached to one an other, and contained in the same socket; but, as they advance in their growth, the sockets become enlarged, a separation of the pulps and a division of the sockets take place, and a separate socket is formed for both: in this state they remain intimately connected by the means of their membrane and the gums. From a due consideration of this fact, the great sympathy and influence between the first and second set of teeth become perfectly evident; a fact requiring a very comprehensive consideration in the treatment of children on the shedding of their teeth."

Mr. K. is of opinion that the teeth, notwithstanding they consist of the hardest and most solid bony texture, are nevertheless organized, vascular, and interwoven with nervous and arterial fibres. We do not dispute the accuracy of this doctrine, but we can admit it only as matter of analogical inference: every thing that grows must have life and be organized; consequently the teeth are vital and composed of organic structure; if they were protected from the external air, and the influences of chemical and mechanical agents, and, when diseased, were cleaned and dressed as bones are, it might be *inferred* that they would regenerate their structure as other organs do. Mr. K.

has *said*, but not *shown*, that the teeth are *vascular*; but it is a fundamental rule in philosophy, never to assert what can not be demonstrated; his pathological observations are consise, but valuable.

CHAP. IV. *General Remarks on the Diseases of the Teeth and their relative Parts.*—Nature has destined the teeth to live and die only with the general constitution: Mr. K infers this doctrine from the fact, that such is the case with the brute animals in which the teeth are not exposed to the same morbific causes that occasion the loss and destruction of these organs in man. We quote what follows as legitimate and ingenious reasoning:—

"If we see, for instance, (p. 46,) an individual after the age of thirty years, in a most delicate state of health, with a beautiful and perfect set of teeth, we may safely infer from this fact, and we will generally find it so, that Nature had originally given him a good constitution, and that, at an early period of life, he was not suffering from any disease of consequence; but, that some later causes or accidents must have impaired his naturally good constitution. If, again, we observe an individual, of a very robust constitution, possessed of a very diseased set of teeth, we may also frequently find that, at an early period of life, he must have been the subject of constitutional disorder, to the influence of which should be ascribed the actual imperfections or diseased state of his teeth. In these instances, however, much greater circumspection is requisite than in the former, inasmuch as no positive conclusion could be drawn, and no prognosis should be made, before we have positively ascertained the actual fact, that the diseased state of the mouth is not the effect of some mechanical or chemical cause, such as accidental violence, injudicious operations, or other mal-practices, of incompetent dentists."

No doubt can be entertained of the general accuracy of these positions: they are exceedingly important, and ought never to be lost sight of in practice. Mr. K. thinks the diseases of the teeth and parts connected with them are not many, and the judicious management of them is not rendered difficult so much by their number as by their great varieties of situation, character, and stages, and a multitude of other perplexing circumstances, which obstinately resist their curative as well as preventive treatment.

CHAP. V. *General View of the Causes of the Diseases of the Teeth and their relative Parts, with their Mode of Action.*—These causes are either general or local: under the first head are classed constitutional diseases, constitutional changes, diet, climate, and medicine; under the second, diseases of the mouth, tartar, saliva, and external applications. All constitutional maladies, and such local diseases of important organs as affect the whole system, and through it, individual parts, must be presumed, Mr. K. says, to extend their morbid influences to the teeth as well as gums: it also appears that, in consequence of the intimate sympathy subsisting between the teeth—supplied as they are with nerves of extreme sensibility, and with arteries at least not less irritable than arteries in other parts of the body—and the general system, that the diseases of the latter must be productive of more extensive effects upon the former than upon other parts generally, especially when affected by local disease: this fact, he declares, has been proved to him beyond any doubt, by repeated observations and long experience. In chronic diseases, the teeth generally assume a pale or milky-bluish appearance, and become more or less "opaque;" while, in acute fever, they acquire an "inclination" to a reddish hue. There is some originality and much instruction in this quotation:—

"After death from violent fever, (p. 51,) I have found the blood in the blood-vessels of the lining membrane of the teeth sometimes very dark, so that the external appearance of the teeth was quite red; and, at other times, great parts of the bony structure had also *turned considerably red, from the great injection of the blood, and from its coagulation in the minute vessels of these parts*; this, by maceration during two or three months, I could not succeed wholly to extract."—"The gum-boil is a local disease produced by mortification in the socket, and suppuration and inflammation in the periosteum and the gum, originally and proximately occasioned by dead roots or teeth; and, though very small in its external appearance, is an affection of no little importance, it being constantly progressive in its nature, and totally destructive in its event: its real exciting cause is much more frequently indigestion than the action of cold."—"In persons having calculous affections, there is a remarkable tendency to deposition of tartar on the teeth, and it is always necessary to use powerful means to resist its re-accumulation after being perfectly removed."—"The prevalent idea that consumptive persons have good teeth, because they are often delicately white, is altogether groundless: these subjects are generally young people, and such as have not lost their front teeth; and the diseased action, produced in them by the constitutional disorder, gives to them the opaque, pale, or bluish appearance, which is mistaken, by the inexperienced eye, for a symptom of health, while, in reality, it is an indication of a morbid state of the lining membrane; in fact, so far from finding good teeth in such persons, I have generally found them comparatively defective and diseased."

Mr. Koecker's remarks on constitutional changes are very limited, being chiefly confined to pregnancy: those on diet and climate are concise also: what he says on medicine will be found accurate and interesting: he finds himself authorised in considering all medicines, properly administered, to be as beneficial to the teeth as they are to the other parts of the animal system: he would not even except the most powerful preparations of mercury, arsenic, or the acids, when skilfully exhibited; but he thinks there is neither rashness nor uncharitableness in attributing a large proportion of the local and general diseases of the system, and consequently of the teeth, to the abuse of medicine.

Passing, with a short notice, the diseases of the mouth, the tartar and saliva, as *local* causes of disease in the teeth and gums, Mr. K. enlarges on the misapplication of external remedies; among which he ranks tooth-powders, tooth-pastes, tinctures, essential oils, and mixtures of all kinds; tooth-brushes and tooth-picks. Of all external causes, however, none are more active and mischievous than the unskilful operations of cleansing, scaling, filing, cutting, plugging, and extracting the teeth; but, he adds, "the most cruel and destructive of all morbific causes known in dental surgery, are those recommended by Hunter, Fox, and others, namely, destroying the nerves of the teeth, replacing a tooth in its socket after its previous extraction, transplanting teeth from the mouth of one person into the mouth of an other, applying the actual cautery for arresting hæmorrhages from the socket after the extraction of a tooth, using ligatures for retaining in their places artificial teeth, or such diseased teeth as are loose, or rather the sockets of which are destroyed by disease, and inserting artificial teeth without the necessary surgical principles, and great judgment and skill." These are the *ipissima verba* of Mr. Koecker, and we do think they call for serious consideration.

CHAP. VI. *On the Morbid Effects of the Diseases of the Teeth and Gums*

on the General System.—This section contains many instructive observations: we submit a fair specimen in the shape of an extract.

Diseases of the teeth "act like slow poisons, slow but sure: they will destroy either in a direct or indirect way; but towards destruction they certainly tend. In strong constitutions, which are little influenced by local diseases of the mouth, and in which the affected parts are not excited by general causes, or irritated by previous mal-treatment, the maladies of the teeth, and still more those of the neighbouring parts, may proceed to a considerable extent, without being accompanied by very painful symptoms, either local or general, and even without much apparent inconvenience. In such instances, the diseases of the mouth are so slow and gradual, yet so certainly progressive, in their chronic state, that sometimes not one part connected with the teeth is left in a perfectly sound state; until at length the whole catalogue of the diseases of those parts meet in one and the same case: and, in the same regularly slow and progressive manner in which these maladies proceeded, they will also again decrease, and Nature alone will effect a perfect cure by the removal of every tooth, and by the consequent annihilation and total absorption of the alveolar processes. The general health, in cases of this kind, always maintains its predominance over local disease, and one diseased part becomes the means of effecting the destruction of an other. The principal local causes of the diseases of the gums, periosteum, and alveoli, being decayed or dead teeth and tartar, and the principal causes of the maladies of the teeth themselves being the diseases of the gums and sockets, the diseases of the gums are cured by Nature only, by the removal of all the teeth and tartar, and by absorption of the alveoli and gums. This progress of disease in the teeth and gums is most frequently observed in the more healthy and ignorant classes of society, whose teeth are generally left to Nature, in consequence of which they frequently suffer from neglect, but very seldom from artificial causes; for the nervous sensibility is, generally, much less in uneducated people, and the constitution less irritable than in the enlightened and polite classes of society."—"The important connexion between the teeth and gums on the one hand, and the general system on the other, and the exceedingly great influence, whether favourable or otherwise, of the former upon the latter, have not hitherto received so much attention on the part of physicians and surgeons as they really deserve. Would the more liberal members of the healing art determine their earnest attention to the diseases of the teeth as causes of disease in the general system, I feel confident that it would contribute, in no small degree, to the extension of their professional powers. In those affections which are generally classed in the list of nervous and rheumatic diseases, whether chronic or acute, the teeth, if in any way disordered, may always be suspected to be the principal causes. The immediate connexion of the teeth and other parts of the mouth with the digestive organs and the lungs, renders it still more probable that the maladies of the teeth may very frequently constitute a very considerable part of the exciting causes of primary and secondary derangements of these important parts; while, it is also very evident that, in consequence of their close relationship with the brain, the delicate organs of the senses of hearing and of sight must very often be much impaired and painfully affected during diseased states of the teeth, gums, alveoli, maxillary bones, and their investing membrane."

Diseases of the teeth, according to Mr. K.'s observations, are much more common in America than any other country: they are also much more acute and violent in their symptoms, and by far more rapid in their progress than perhaps in any other climate.

CHAP. VII. *Treatment of the Diseases of the Teeth and their relative Parts.* This chapter is subdivided into two sections, entitled, Introductory Observations, and a View of the Author's Principles and Method of Treating the Diseases in Question: under each of these will be found not a few important remarks, occasionally embarrassed, however, with repetition. Mr. K. informs us, that the chief curative means of the dentist are operations, many of which produce considerable irritation; and, hence, if unseasonably performed, they aggravate instead of curing the malady, and also extend its injurious effects Almost every disease requires a different treatment: in complicated cases, therefore, it is necessary to ascertain their several causes; for, in the removal of these, which is not to be effected without consecutive operations, the success of the treatment depends much on the manner in which such operations are performed; in practising them it is proper to avoid precipitation as well as delay, as being equally dangerous. Acute diseases of the teeth and mouth should be first considered in the treatment, with reference to the general health and that of the parts; and next, their chronic symptomatic affections, which exercise the same hurtful effects upon the system as on the seat of the malady. Our author's doctrine, in fine, is, that the cure of disease in the teeth and gums depends upon a skilful removal of its morbid causes, and particularly upon the order and time of the operations necessary for this removal. He divides these causes into the acute and chronic, which again are subdivided into general and local.

"All acute diseases of the system," he observes, (p. 134) "whether general or local, act more speedily and destructively upon the teeth and gums than any other causes; and, of local diseases, those of the mouth in particular. The latter produce the greatest symptomatic inflammation of the different parts of the teeth and gums; and, as they are also, in most instances, not a little painful, they should be first attended to. The dental treatment, at any period of an acute disease of the general system, accompanied with pain and other acute symptoms in the teeth or their relative parts, should never be more than partial, amounting only to the removal of such causes of the local maladies of the mouth as are presumed to produce immediate pain or acute inflammation; and this should be done in the most cautious manner. Even when chronic maladies have so much affected the patient as to have confined him to his bed or room, and to have been accompanied by acute inflammation of the gums and teeth, it will be proper to observe the same treatment But when the disorder is not of that violent kind, the whole system will be greatly benefited, not only by a removal of such local exciting causes as occasion the acute and painful diseases, but also by the additional removal of all presumed causes of chronic maladies of the teeth and gums; and this treatment should be accompanied by a proper and judicious regard to the state of the general health and constitution. These principles should be particularly observed in respect to females in time of pregnancy or suckling, inasmuch as a cautious treatment of the teeth and gums *will not benefit the health of the mother only, but also that of the child, and even the future soundness of the latter's teeth.*"

These last remarks are exceedingly important, and ought to fix the attention of every obstetrical practitioner. Our author states that, in no instance has he been deterred from performing any operation, of which the necessity was sufficiently indicated, by the circumstance of pregnancy or suckling, provided the person was willing to undergo it; and particularly in those cases where it was to be instituted, with a view to relieve the patient from immediate suffering. He extracted fifteen decayed and dead teeth and roots, in the space of twenty-five minutes, from the mouth of a lady in the fifth month of pregnancy, with the best results.

Mr. K.'s account of his principles and method of treating the dental diseases is not very perspicuous: it is illustrated, however, by several minutely detailed cases; and, in one to which he makes particular reference, the patient underwent sixty-two operations, occupying, at different sittings, from one to three hours each: a summary of these will exhibit the progressive stages of his treatment. *First*, nine operations were executed for the extraction of carious teeth and roots; *2d*. Two for scaling the teeth; *3d*. Twenty-eight for removing the superficial caries with the file and cutting instruments; *4th*. Twenty-two for the extirpation of caries, and for stopping the cavities; and *5th*. One for treatment of the lining membrane after it had become exposed. In our author's general principles, in fine, we see much good sense and sound pathological philosophy; but we could have wished that he had given some plates of his instruments, and a more detailed account of his method of treatment, in order to prevent his enemies accusing him of holding back information which it was in his power to convey.

CHAP. VIII. *Preventive Treatment necessary for the Preservation of the Health and Beauty of the Teeth and Gums.*—Mr. K. remarks very justly, that to enable the dental surgeon to discover, and then to remove or counteract, the causes which arise from general diseases or local affections of the mouth, a complete general physiological and pathological knowledge is requisite. Although, he says, general diseases have not any immediate and permanent effect upon healthy teeth, still it is known that they injure them indirectly, and sometimes occasion such local maladies of the parts surrounding the teeth as determine, at one time or other, the accession of idiopathic diseases in these parts, and the consequent loss of the teeth themselves. When the gums and teeth, he adds, are in a healthy state, general diseases can be considered only as causes of symptomatic affections, or of future diseases only; but, if the effects or changes they produce are not attended to in proper time, some affection of the teeth, or of the gums and socket, may be the consequence. These are adduced as reasons for advising the attendance of a dentist in consultation with the medical attendant.

After stating generally the causes of local disease in the teeth, he observes, that attention to the removal of these causes is particularly requisite in every case after general disease, confinement in childbed, suckling of children, and voyages at sea. He has never been obliged, he adds, to repeat an instrumental cleaning, after having once restored the teeth to perfect health, except when some particular cause or great neglect of the patient's has rendered the repetition unavoidable; and this leads him to deprecate the custom of having the teeth cleaned by a dentist, regularly every six or twelve months, which, he says, is about as ridiculous and as mischievous as the exploded one of taking a strong dose of medicine once in the month, for the purpose of preserving the digestive organs in a healthy state. The remarks on the means of the preservative dental treatment, which occupy the best half of this chapter, are very general.

CHAP. IX. *Treatment of the Teeth and Gums of Children at the Second Dentition.*—Nothing more than successive applications of "proper preventive means" is necessary for treating the teeth, at this period, in strong and healthy children. These means, according to our author, are *first*, to

assist Nature in its natural process, if this is too slow, by removing those temporary teeth, whose roots are too slowly or irregularly absorbed, even though they should be free from disease; *second*, to retard this process, if it is too active, by preserving all the contiguous parts of the remaining first teeth, and of the permanent teeth, which are already visible, in a healthy state; by which means, every unhealthy and irregular action, and consequently too rapid a progress in some, and too slow a progress in others, are prevented;—by the removal, also, of all such temporary teeth as are painful, from the lining membrane being irritated by caries;—and, likewise, by strict attention to keep the mouth perfectly clean. *Third*, to prevent all morbid influence of the temporary teeth upon those of the permanent set,—by employing, as suitable, the means already enjoined, and by extracting such of the temporary as are so diseased that their caries is brought into contact *(does this imply the possibility of contagion?)* with the permanent teeth, particularly with their lateral surface, even though the former should be free from pain. In addition to this local treatment, Mr. K. recommends attention to the peculiarities of constitution, enjoyment of a wholesome atmosphere and a nourishing diet, perfectly free from stimulating properties.

Irregularity of the teeth is regarded by our author as one of the chief predisposing causes of their diseases, and never fails, even in the most healthy constitution, to destroy, sooner or later, the strongest and best set of teeth unless properly tended. These effects of irregularity are made by far too exclusive, we should think; and the unpleasing, grinning, or forbidding appearance of the features and countenance, ascribed to the same source, is not quite universal. He enjoins especial attention to "these disorders" at an early period of life, and to extract some of the permanent set, in order to give sufficient room for the rest. Instead of the incisor, cuspid, and bicuspid teeth, he prefers the first molar for extraction, because these are generally most predisposed to disease, are least important, and so situated as to afford, by timely removal, sufficient space for the anterior teeth, as well as the second and third grinders: the operation should be performed at any period before the age of twelve years; and it is absolutely necessary that all the four molar teeth be extracted at the same time or at very short intervals. With two cases this chapter ends: we have given the substance of it.

PART II.—At which we are now arrived, comprises the history and treatment of the most common diseases of the teeth and gums, with the methods of performing dento-surgical operations.

CHAP. 1. *Caries of the Teeth.*—This chapter is introduced by some general remarks, and then subdivided into two subordinate sections. With respect to caries, Mr. K. holds it to be the most afflicting and destructive disease to which the teeth are liable, not unfrequently spreading its ravages until every tooth is destroyed; he asserts, also, that this malady has hitherto not been properly understood, nor satisfactorily described by any surgical writer. One great cause of this, he thinks, is the surprising manner of confounding the disease with its effects—"putrefaction;" or, in other words, the mistaking a living tooth under the influence of disease with a dead tooth which disease has destroyed.

"Caries of the teeth," he states, p. 208, "must be considered as similar to gangrene of other parts of the system: and, where we speak of caries as a disease, we mean that diseased action in the bony structure of the living tooth, which is produced by the chemical irritation of its rotten or

dead parts. Hence, it is indispensable that we should make a due distinction between caries considered as a disease in the teeth, and the effect of that disease; namely, mortification and putrefaction of its whole structure: a carious tooth, properly so called, is a living tooth possessed of that vital action by which the, morbid irritation of the dead substance is counteracted. By this counteraction, more or less inflammation is produced in the bony structure of the tooth; whereas, a tooth deprived of this vital action, is no longer carious but dead. This distinction is of the greatest importance, not only inasmuch as the effects of diseased and dead teeth are very different, but, also, as they almost invariably require an opposite surgical consideration and treatment."—"Caries," p. 211, "in fact, is that state of the teeth in which mortification has taken place in one part, and inflammation in the part contiguous to it, the former originally produced by the latter, and the latter kept up by continual contact with the former. The rapid progress of diseased action must consequently more quickly destroy the living tooth, than the chemical agency by which dead matter acts upon a bone of so hard and dense a structure as a human tooth; and the less, therefore, it is enabled by its very dense construction to arrest or suspend diseased action when living, it is naturally the more adapted to bear the most powerful chemical and mechanical influences, such as putrefaction and mortification, in its dead state. This may be frequently observed in dead roots, which remain after the crumbling away of their crowns; the roots are sometimes particularly protected by the surrounding parts.

We stay not at present to inquire into the accuracy of these pathological distinctions, or to express a desire of knowing the evidence on which they are based: neither have we inclination to review Mr. K.'s criticisms on Hunter, Fox, and Duval, which, though perhaps just in a few respects, are undoubtedly expressed with little courtesy. He divides the treatment of caries into three parts;—of the *simple*, or that form of it wherein the bony structure of the tooth is exclusively implicated;—of the *complicated*, or when it is accompanied by disease of the lining membranes of the teeth; and, of the *morbid* effects produced by teeth deprived of their vitality.

Simple caries is divided by Mr. K. into the *external* and *internal* kinds; and his descriptions of these as well as of their *symptoms* and *causes*, are very good; his treatment, in fewer words than his own, is this:—First of all, he removes all the general and local exciting causes, and then the proximate cause, by extirpating the mortified or inflamed parts of the bony structure of the teeth by surgical operations *properly adapted* to the several stages of the disease: when this has not penetrated more than one third of the bony structure, he cuts away the dead and diseased part with the file and chisel or other instrument, so as to produce a sound and even surface: when it is deeper than one third of the bony structure, yet has not exposed, irritated, or inflamed the nerve of the tooth, the dead and inflamed parts are to be removed and the cavity filled with gold: and, when the caries is deep-seated, it can be cured only by the latter operation; filing or cutting, without stopping, tends to accelerate the disease's course.

Caries is complicated, when it has penetrated as far as the natural cavity of the tooth, and is attended with inflammation and disease of the living membrane: the progress, symptoms, and causes of this morbid state of a tooth are well described. Our author considers tooth-ache as the result of a change in the affected parts from chronic to acute inflammation, determined by internal or external causes altogether foreign to the local disease. It is invariably produced, he says, by some violent irritation of the affected nerve, and not the immediate effect of the disease itself: it may, therefore, be generally palliated or relieved by removal of the causes, or the restoration

of the parts to their chronic state, by the assistance of either art or Nature. Mr. K. however, has not chosen to inform his readers of the means by which this palliation or relief is to be obtained; and hence, for ought we owe to his "observation and experience," the cure of tooth-ache must still remain as much a secret as ever. His treatment of the complicated caries consists in attempting the restoration of perfect health to the tooth's lining membrane and the preservation of its vitality, by subduing the inflammation, or in extracting the tooth. In the first or second stage of this disease, six out of seven teeth generally may be preserved by filing or cutting out the carious parts, and stopping the cavity with gold: when, in the third stage, the lining membrane is acutely inflamed and very painful, or when suppuration has commenced, the morbid tooth should be extracted: and, when any of the temporary teeth are affected with caries in its complicated form, they ought to be removed without delay.

Chap. II. *Morbid Influences of Dead Teeth and Roots.*—The chemical and mechanical actions which remove dead teeth and roots place these under the influence of absorption and putrefaction, and, at the same time, excite inflammation and suppuration in the periosteum and contiguous textures. This process, says Mr. K. produces precisely the same morbid irritation upon the living teeth, their periosteum, gums, sockets, and maxillary bones, as well as upon the general system, as that excited by any other gangrenous, dead or corrosive part of the body, upon the neighbouring parts and the constitution. The truth of these statements, he concludes, will be satisfactorily proved by examination after death. Wherever a dead root or portion of tooth has been left in the mouth during life, the gums and periosteum will exhibit more or less disease, and the traces of inflammation and suppuration; but, in many instances, this morbid state will be distinguishable only by an experienced observer. On dissection, the internal spongy structure of the jaw will evince distinct marks of inflammation and of mortification, extending sometimes to distant parts: occasionally, dark red streaks, approaching very nearly to black, are found: these begin at the points of dead roots and proceed to the cheek-bones, occupying an extent of an inch and upwards. By examining jaw-bones, preserved as anatomical preparations, containing dead roots, the alveoli, says our author, will always be found in a more or less diseased state, and sometimes the caries and mortification are very evident: the parts are generally more or less spongy about the dead roots, and perforated by many holes, through which the matter had been discharged. These remarks indicate close observation and are valuable contributions to pathological anatomy.

Dead roots and teeth give rise to many and intense symptoms: Mr. K.'s account of them is good: we give his concluding sentences without alteration.

"Dead teeth and roots," he says, p. 258, "may frequently form the principal cause of many nervous and rheumatic affections of a very alarming nature, and accompanied with much pain; such as, various disorders of the organs of sense, the brain, the face, the ears, the eyes, and other more distant parts, under the forms of tic douloureux, convulsions, epilepsy, hysteria, hypochondriasis, dyspepsy, and mental derangement. Dr. Rush, in his Medical Inquiries upon the *Diseases* of the *Mind*, states a case of madness occasioned by decayed teeth which were not painful: no doubt they were dead teeth. He, also, gives instances of rheumatism in the hip-joint, dyspepsia and epilepsy, cured by removal of painful and dead teeth; and, in confirmation of his opinion, quotes three cases from other eminent physicians.—If those secondary local and constitutional affections, which are frequently mistaken for primary diseases, are treated as such, the sympto-

matic disorder will generally be much augmented. We can not, therefore, too much bear in mind, that the idiopathic diseases of the mouth, even when they are in a very advanced state, often occasion the least pain in the parts primarily affected; whereas, the symptomatic disorders produced by them are exceedingly painful and alarming."

When dead roots and teeth are neglected or mismanaged, he adds in an other place, they may often produce the most dangerous and distressing primary diseases of the mouth, as inflammation and suppuration, gum-boils, fistulous abscesses, scorbutic excrescences, tumours of the gums, inflammation or suppuration in the periosteum, inflammation and mortification in the alveoli and maxillary bones, and diseases of the maxillary antrum. His surgical remarks on dead roots and decayed teeth are brief and brilliant: those on the "cruel and unnatural practices of Messrs. Hunter and Fox" are exquisitely delicate.

CHAP. III. *Absorption of the Gums and Sockets.*—This disease, in Mr. K.'s mind, is far from being accurately understood, and generally held to be incurable. It usually begins in an inflammation and suppuration of the gums, which gradually extend to the periosteum or alveolar processes; or it commences with inflammation of these parts, which is afterwards communicated to the gums: it very rarely originates in the sockets themselves. In most instances, the inflammation and suppuration are seldom violent, and the absorption so slow as to be scarcely perceptible, and the gums, being gradually destroyed, are attended with absorption of their alveoli and periosteum: in the end, the teeth, losing their support, become loose and successively drop out. Morbid absorption rarely attacks all the alveolar processes at once: most frequently it first invades the grinding teeth. During its course, the crowns, necks, and exposed parts of the roots are often covered with a greenish glutinous substance and adhering tartar, and the spaces between the teeth are filled with a dark brown or greenish tartar. For the most part, also, the gums are a little swelled and inflamed; a thin pus-like discharge flows from between them; and the roots of the teeth yield a very offensive smell. Persons of robust constitution are more liable to this affection than the delicate; its worst forms occur after the age of thirty: and, after forty, it commonly appears in a chronic state. Mr. K. avers that, in most instances, advanced age is unjustly considered to be the cause of this state, and that the disease has a peculiar tendency to attack persons who possess vigorous health and sound teeth; and these, he adds, from the stimulant atmosphere of this country, and the wholesome nourishing diet enjoyed by its inhabitants, are much more frequent in England, than in any other part of the world.

We need not follow Mr. K. through his detail of symptoms which is fair enough: nor is it necessary to transcribe any of his cases; that in which he directed the subserviency of the "humane and skilful," "the excellent," "the sagacious and disinterested," and "the judicious Mr. Lawrence," is particularly choice. *Multum tamen abludit imago.*

Among the remote causes of this disease, our author remarks—a scorbutic and scrofulous habit of the gums, frequent and inordinate use of mercury and narcotic medicines, great irregularities in the position of the teeth, neglect of cleanliness, improper manner of brushing the teeth, smoking and chewing tobacco, abuse of spirituous liquors, operations injudiciously performed, imperfect and unskilful scaling of the teeth, and *certain objectionable* tooth-powders: when the teeth are so much exposed, as to be loosened, they prove a very aggravating cause, and the disease is then in its worst stage.

Mr. K. has succeeded in curing this disease in all its stages by a mode of treatment which consists, in checking the diseased action which has become habitual, and in producing a general healthy disposition in the parts, by removing the actual causes—and then in preventing their recurrence. He attains the first object by extracting the teeth whose periosteum and sockets are incapable of restoration, and by subducing the tartar and glutinous matter from the remaining teeth and their exposed necks: the second end is gained, he says, by removing the remote causes, or, if this can not be done, by counteracting their effects. There is not any thing extraordinary in his local treatment: the remarks we subjoin merit some consideration.

"Not one of the molars should be permitted to remain that has no antagonist, particularly if it is situated in the upper jaw; inasmuch as such teeth, being deprived of that necessary stimulus which arises from mastication, their periosteum soon becomes relaxed, and consequently predisposed to disease: besides, the utility of such teeth being lost by want of an opposing surface to act against, they influence the surrounding parts like extraneous bodies. Should there be, for instance, an interval between two opposite teeth when the jaws are closed, Nature uniformly attempts to remedy the evil; and, for this purpose, the cavity of the alveolus contracts at the base, and drives out the tooth until it meets its opponent, by which the necessary stimulus is restored, and the morbid action cured. In this manner, the loss of one molar tooth produces the destruction of its remaining antagonist. This is effected, however, after a struggle of Nature, of very long duration, which will always involve, in some degree, all the other teeth in a like diseased condition: it is necessary, therefore, to prevent this morbid action by extraction of the tooth, or any molar tooth so situated. Every tooth, moreover, which has lost its vitality, including all stumps, and all such teeth, as from their irregular situation or direction excite a mechanical irritation, provided this irregularity can not be remedied by filing, or by cutting away the irritating parts, should also be removed."

After these abstractions, Mr. K. advises the bleeding from the sockets to be encouraged by warm water taken into the mouth, between the operations; and, for several days subsequently, any gentle astringent wash may be employed. In ten or fourteen days more, the inflammation considerably abates, the gums appear more healthy, and the teeth become firm in their sockets. The tartar should now be carefully taken away from the neck or roots of the teeth and the alveolar processes; after this, the green mucus is to be removed by frictions with tooth-powder and a soft brush; and, last of all, the re-accumulation of tartar by the use of mechanical and chemical applications:—the rule, says our author, to guide us in the use of these remedies is, that the more the disease has advanced, the more the chemical agency is indicated, and the more carefully is the mechanical power to be applied. After being freed of their tartar, the teeth should be cleaned every morning and after every meal, with an astringent powder, and a brush so hard as not to cause pain. The internal gums are considerably firmer and less irritable than the external, and consequently can bear more pressure and a harder brush: the pressure of the brush is to be applied in the direction *from* the crowns of the teeth towards the roots, so that the mucus which adheres to the roots under the edges of the gums, may be completely detached, and then removed by the friction in a direction towards the grinding surfaces. Mr. K disapproves of endeavouring to restore the fixity of teeth by means of ligatures. He delays, sometimes for three months, the operations of plugging, filing, or cutting out carious parts, till the irritation caused by them can be endured without injury; and, it is his opinion, that the introduction of artificial teeth, should, if possible, be avoided, except in cases where the necessity is imperious.

CHAP. IV. *Operation of Extracting Teeth and Roots.*—Our author's remarks on the importance of extraction and its remedial effects, contain more truth than novelty, and may be passed with this simple acknowledgement of their merits: his representation of the defects of the "present modes" of extracting teeth and roots, may have some accuracy in them, in as far as they regard the operations, and the operators whom he has had an opportunity of judging: and, in describing the "consequences arising from the present imperfect state of the operation," he aspires to be eloquent: without pretension to soothsaying, however, we predict that the books of M. Duval will be studied both by dentists and doctors, notwithstanding the severe animadversions of Mr. Koecker. "Were *his* (M. Duval's) system adopted," says our critic, "the art of the dentist would retrograde to *that perfection* in which it flourished between two and three thousand years ago at Athens and Rome, and prodigious improvements might doubtless be expected from so scientific a return to those olden and golden times."

There is nothing remarkable in Mr. K.'s practical remarks on the operation of extraction: students and young dentists may profit from a perusal of his anatomical and pathological aphorisms. Mr. K. had the best opportunity of ascertaining all the effects of the operation upon the patient, under all its circumstances and periods, by taking occasion to extract some of his own teeth: he made the process a matter of particular attention, and thereby acquired personal and experimental information on the point at issue. We transcribe it in his own terms.

"The teeth which I extracted from my own mouth, were seven in number: six upper, and one under, large grinders. They were all very firmly seated in their sockets, and the upper had each of them three, and the under two roots. In the upper teeth, with the exception of one only, the caries had just reached the nerve, and the under was perfectly sound; so that in six of them no considerable inflammation existed, either in the nerve or in any of the surrounding parts. The extraction of all the upper teeth was performed with the forceps, and very slowly, that I might be able to feel, and remember distinctly, the peculiar kind of pain attending each part of the operation in all its degrees. When I took hold of the tooth with the instrument, I felt no pain whatever; in moving it towards the outer side of the mouth, it seemed to me that I could hear the gradual tearing of the periosteum on the inner side, and feel the crushing of it on the opposite side of the roots. This process was accompanied with little or no pain; but, when the periosteum was perfectly separated and the different nervous cords were being torn off, I felt an acute pain of momentary duration, very similar to what I had experienced the evening before from the tooth-ache for at least an hour; I believe it was equally great, but certainly not greater, and it was instantly over. The second large grinder, in the left side of the under jaw, was removed towards the posterior part of the mouth; and, when loosened, was extracted from its socket by the forceps. The lining membrane of the first large grinder, on the right side of the upper jaw, having been previously inflamed, and suppuration having commenced, the pain from extraction was somewhat more acute than what I experienced in the removal of the other teeth, yet it was much more supportable than the tooth-ache."

We come now to a number of sections, having each its own title—as, *of the Performance of the Operation of Extracting Teeth; of the Physical and Mechanical Means to be used in this Operation; of the Operating Chair; of the Forceps; of the Pyramidal Lever; of the Instrument invented by Dr. Physick; of the Key and the Punch; Remarks on Instruments for*

Extracting Teeth in a Perpendicular Direction; of the Moral Means subservient to the due Performance of the Operation of extracting Teeth; of the Impropriety of applying Force and of using Deception; with concluding Remarks on the Author's method of extracting Teeth and Roots. The discussions on these important questions are very good in their way. Mr. K. was reduced to the necessity of inventing an operating chair for himself; and—

"This chair," he states, (p. 340) "is one of the most important improvements which, I hope it will not be deemed presumptuous in me to say, I have made in the apparatus of the profession. It is susceptible of so many changes with great ease and expedition, and without the use of any complicated machinery, that it may be accommodated to the size of any patient, and to every position of the head for any process, and wholly supersedes the necessity of any services from assistants, which are both very uncertain and unsafe."—"The number of my instrments," he adds, (p. 345,) "for the extraction of teeth is upwards of eighty, of which more than two-thirds are actually indispensable to do any justice to this important remedy. Indeed, my apparatus, in consequence of its extent, and on account of its great difference from what is generally used, would not only be dangerous in the hands of the ignorant, but its judicious application would require some previous practical instruction even on the part of the scientific dentist."

Chap. V. *Treatment after Extraction, and the Accidents incident to this Operation.*—Mr. K. rejects the use of cold water, vinegar and water, all astringent fluids, brandy and water, and stimulating lotions of every kind, after extraction of a tooth, as being almost invariably productive of pain, inflammation, swelling, sudden mortification of some part of the gums, or other injuries, occasionally of hæmorrhage: he prefers warm water alone, and that of a temperature not to produce any painful sensation in the wounded parts: his only after-treatment is attention to cleanliness of the mouth: when many teeth and roots have been extracted, and the parts had been previously diseased, he endeavours to promote absorption by slightly stimulant or astringent lotions: but these must always be warm, and of very moderate strength. When a tooth breaks during extraction, he proceeds immediately to remove the roots; and, on considerable portions of the sockets and jaw-bone being broken, he smooths the irregular corners, and applies a stimulant lotion, mixed with something mucilaginous. He condemns, as "dangerous and pernicious," the practice of replacing a sound tooth extracted by mistake. In all cases of hæmorrhage after extraction of a tooth, he denounces as mischievous all tonic and stimulant or acid lotions, and caustics of every kind, especially the actual cautery, and advises, in their stead, the use of water as warm as can be comfortably borne in the mouth; but his principal dependence is on the application of mechanical pressure. His three histories of hæmorrhage are very deserving of attention.

Chap. V. *On Stopping Carious Teeth.*—We cannot afford space to introduce our author's practical remarks on stopping the teeth, or his criticisms on the present imperfect mode of performing this operation: those at the expense of Mr. Fox are very severe as usual. Neither is it requisite that we should detain our readers with his estimate of the instruments in use for the process of stopping; this, therefore, with his descriptions of the

materials improper for such a purpose, and of the methods of employing them, which he deems injurious, we pass over; and, in doing this, will arrive at his own method of plugging the teeth. "On looking over my cases of instruments, I find," he says, (p. 403,) "that, for this operation alone, more than one hundred and seventy separate implements are ready for use; not to add, that I am always provided with some particular mechanical tools with which I can, at any time, modify certain instruments, with a view to adapt them for uncommon cases with very little delay."

Mr. K. declares that gold is the only material, the durability of which can be depended upon for properly plugging the teeth: he uses the metal in its purest state, and generally keeps about six different degrees of thickness of the gold leaves, for the purpose of being prepared to meet every diversity of circumstance. All carious teeth, in which the disease has not "completed its work of destruction," nor has advanced to such extent as to be incurable by the combined efforts of art and nature, indicate the necessity for this operation: our author's general rules relating to this question, will be perused with advantage. To render the process certain of success, it is requisite that the morbid teeth be perfectly free from all symptomatic inflammation of the lining membrane or bony structure: general fever, however slight, is a sufficient cause for delaying the operation: it should never be attempted, indeed, except when the individual enjoys good health: every local exciting cause of inflammation should also be entirely removed.

Stopping a tooth is divided by Mr. K. into two parts—a curative, and a preventive treatment: the first consists in the perfect extirpation of the carious, or, as he calls it, the bony abscess; the second, in the proper stopping of the cavity, on which the permanency of the cure depends, and a relapse is prevented: by thus filling up the cavity, three great objects are attained—security against any accumulation of corrosive matter in it; protection of the lining membrane; and restoration, in a great measure, of the health and strength of its bony structure. Great care should be taken to cut away the whole unsound portion of the tooth; not merely what is brown or darker than the rest, but every particle that is not white and evidently undiseased; if one speck of caries remains, a cure cannot be accomplished. When the lining membrane is covered only with dead or putrid structure, this should be perfectly removed, and when the nerve is laid bare and bleeds, the hæmorrhage must be allayed before the plugging can succeed.

"The final consideration, says the author, (p. 416,) "in the management of this part of the operation is, to take great care to give the cavity a proper form in order to retain the metal. For this purpose, it should be round or oval, entirely smooth, and free from ragged edges," *(and, he should have added, wider at the bottom than the orifice,)* "and, before the metal is placed in the tooth, the cavity should be carefully washed out with locks of cotton" *(a soft feather, a hair pencil, or piece of sponge fixed to a proper handle is preferable)* "dipped in warm water, and afterwards completely dried by the same means. In stopping the tooth, the metal should be firmly pressed into the cavity, and rendered as compact as if it were solid metal, so that nothing could by possibility penetrate through it. The redundant metal is then to be cut away, and the plug perfectly smoothed and polished by some burnishing instrument."—"When the caries is in that side which is next the adjoining tooth, a division must be made with a file between the teeth, in an oblique direction towards the neck of the tooth, so as to permit extirpation of the caries and filling of the cavity."

☞ *Continued at p. 213 et seq. of this Number.*

Quarterly Periscope
OF
PRACTICAL MEDICINE;
BEING
The Spirit of the Medical Journals,
Foreign and Domestic;
WITH COMMENTARIES.

PART I.
PERISCOPE OF HOSPITAL REPORTS.

"Neglecta reducit, sparsa colligit, utilia selegit, necessaria ostendit,—sic utile."—Baglivi.

1. M. ANDRAL ON CHRONIC GASTRITIS.

Memoire sur les Caracteres Anatomiques de la Gastrite Chronique. Par M. Andral, Fils.*

A Memoir on the Anatomical Characters of Chronic Gastritis. By M. Andral, Jun. [La Charite.]

Part I.—*Alterations of the Mucous Membrane.*

In the great majority of cases of chronic gastritis, dissection shows the mucous membrane of the stomach altered in various degrees from its natural appearance. Sometimes, however, no appreciable lesion can be discovered after death, the surface being of its natural colour, thickness, and firmness throughout. In such cases various diseased conditions of the subjacent cellular tissue are found—especially in that condensed and whitish membrane between the villous and muscular tunics of the organ. M. Andral concludes, from analogy, that, in such cases, the inflammation has extended from the mucous membrane to the subjacent tissue, leaving its former seat in apparent integrity. He illustrates this supposition by the following analogical facts. An individual is attacked with enteritis or colitis. If he dies in the acute stage, the mucous membrane alone will be found affected, either by redness, softness, ulceration, or other alteration. If he survives for a certain period, until after the inflammation has become chronic, the intestine presents three different states: 1mo. The inflammation may be confined to the mucous membrane only; 2ndo. The mucous membrane and the subjacent tissues may be affected in equal, or in very disproportionate degrees,

* Repertoire Generale, &c. No. 1 and No. 2, 1826.

But a sound condition of the mucous membrane of the stomach in chronic gastritis is a rare occurrence. Most frequently it presents divers alterations in consistence, thickness, and form. The alterations in colour are very often the same as in acute gastritis. These are redness, grey-slate colour, (grise-ardoisée) brownness, and blackness, in various degrees of intensity. We need not enter into M. Andral's speculations on the cause of these different colours; but if any one should doubt that they *are* signs of previous chronic inflammation, he submits the following facts for their consideration.

1mo. If the symptoms during life have been well observed in such cases, they will always be found to have been those of chronic gastritis—at least such is the result of his observations in La Charité. But these symptoms often escape observation, if great attention be not paid, because they are not, in fact, very prominent; and because chronic gastritis is often complicated with other maladies which absorb the attention of the practitioner.

2ndo. But in the greater number of these cases of discoloration in the mucous membrane, other alterations will be observed which can not but be considered as proofs of previous gastritis, such as thickening, induration, vegetations, &c. while the subjacent tissues present unequivocal traces of phlogosis.

3tio. In certain cases of ulceration of the stomach, and still more frequently in ulceration of the intestinal canal, we find the borders of the ulcers discoloured in the manner above-mentioned.

4to. We must not attribute the grey-slate discolorations to putrefaction, *post mortem*, since, in many bodies that are highly putrid, we find marks of putrefaction, but never the grey-slate or brown colour of chronic gastritis. Some have attributed this peculiar appearance to the operation of the gazeous contents of the stomach or bowels—especially to the extrication of sulphuretted hydrogen gas—but this gas has never been demonstrated in the stomach where the above appearance is most common. We shall not follow our author through all his minute descriptions of these discolorations; but it may be observed that the brown and slate-coloured appearances are very rare in acute gastritis, and the most common of all in chronic. Hence M. Andral thinks that a mere inspection of the colour alone may generally determine which of these inflammations existed previously to death. But it is to be remembered that, although the grey-slate colour is rare in acute gastritis, it is by no means uncommon to find the mucous membrane of a bright red colour in chronic inflammation of the organ.

In some cases of unequivocal chronic gastritis, M. Andral has found nothing but some large stripes of thickened and condensed mucous membrane, the colour being actually paler in those parts than in the rest of the stomach. In one case particularly, which recently occurred in La Charité, the local and general symptoms of chronic gastritis were so marked, that a cancerous affection was suspected, the patient having often vomited black matters like coffee grounds—and yet, on dissection, the internal surface of the stomach presented only one patch of a milky white colour, with

presenting softness of structure, alterations of colour, in points, stripes, or patches—or even in ulcerations, in various stages of development or cicatrization, the same as we see in the mucous membrane lining the mouth or pharynx. In some of these instances, the mucous membrane would seem to be in a mending condition, while the sanative process had not yet commenced or advanced in the subjacent tissue. 3tio. The mucous membrane returned to a perfectly sound state, while traces of disease are still cognizable in the cellular membrane underneath.

In the mucous membrane of the lungs, the same succession of phenomena may be seen: thus, in acute bronchitis, the inflammation is bounded to the mucous membrane; in chronic bronchitis, the lining membrane and the tissue underneath are both affected, in various degrees; and, finally, at a more remote period, we shall find the mucous membrane become sound in structure, at least in appearance, while diseased conditions still obtain in the neighbouring parts. If these analogies are not quite satisfactory, M. Andral resorts to a more tangible example: thus, after an inflammation, more or less intense, of the conjunctiva, and after this membrane has begun to resume its accustomed transparency, the cellular tissue connecting it with the sclerotic will sometimes continue inflamed, infiltrated with pus, thickened, or the seat of various incipient alterations of structure. The same may be observed of old gonorrhœas, where the mucous membrane of the urethra will have regained its pristine state of integrity, the subjacent cellular tissue remaining thickened, indurated, and causing strictures of the passage. Other examples, of the same tendency, may be cited from inflammations of the serous and synovial membranes, where these last are become natural in appearance, the traces of disease still subsisting in the contiguous structures. Applying these analogies, then, to the stomach, we may conclude that the inflammation (the traces of which can only be found in parts beneath the mucous membrane) had its primary seat in this membrane itself. M. Andral avers that he has had opportunities of proving by ocular demonstration, these transitions and changes, in cases that happened to be cut off in various stages of disease.

The next question is this:—When the mucous membrane of the stomach is returned, in appearance, to a state of integrity, the traces of disease still existing in the parts beneath, is the *appearance* a proof of *real* integrity in the membrane? It is to be observed that, notwithstanding this apparent sane state of the membrane, in the eye of the anatomist, the physician will find that the *function* of the part is not restored to health. The digestion will be slow and painful, and the surface of the stomach incapable of performing those changes in the food which constitute perfect chymification. This observation applies, also, to other parts, besides the stomach. Thus, in some individuals, who had presented all the symptoms of chronic bronchitis, with copious puriform expectoration, our author has found the mucous membrane of the larynx, trachea, and bronchia, in apparent integrity, and without the smallest vestige of even redness, so that its pathological condition could only be inferred from the disordered function during life.

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some thickening and induration of the membrane. In other instances, this milky whiteness was found to coincide with a swelling and softening of the mucous membrane, having vessels traversing it, and also some red spots scattered over its surface.

In almost every case where the stomach has been the seat of long-tinued inflammation, dissection shows some alteration in the consistence of the mucous membrane, consisting of either induration or softening. The *induration* is one of the best marks by which chronic may be distinguished from acute gastritis, whether as regards the membrane itself or the contiguous tissues. Softening of the membrane is a consequence equally of chronic and acute gastritis—but *induration* appertains exclusively to the *former*. This induration may be either general or partial. It may co-exist with a natural colour of the membrane—with a white colour—or with a grey or brown colour—but never with a red or vermilion colour. Often as this *induration* is found in the stomach, it is less frequent than the opposite condition—softening. This last is the most frequent of all organic changes found in the stomachs of those who have sunk under chronic diseases of various kinds in the hospitals. Hence, if it can be proved (as it presently will) that this softening of the mucous membrane is the product of inflammation, it follows that gastritis, acute or chronic, is a very common disease—much more common than has hitherto been supposed, whether it exists as a primary affection, or only as a complication with, or supervention on other maladies.

This softening has been so well described by M. Louis, that our author does not deem it necessary to go into its description here:—he observes, however, that it may be divided into three principal grades, viz. in the first degree, the membrane, though much softened and easily reduced to a pulp between the fingers, yet preserves some appearance of consistence before it is scraped with the scalpel:—in the second grade, we find, in place of mucous membrane, only a pulp, of a white, grey, or reddish colour, which one would easily mistake for a layer of mucus spread over the cellular tunic. In the third degree, this semi-liquid pulp has disappeared, and the subjacent cellular tissue is left naked, in spaces of greater or lesser extent. One of the most remarkable examples of this was seen in the case of a man, aged 36 years, who died phthisical in La Charité in June, 1824. During the three months which he spent in the hospital, he had no vomiting, but complained of complete loss of appetite, an habitual sense of tightness in the epigastrium, changing into actual pain on taking food, and sometimes even on taking simple drink. Wine produced nausea, and a sensation of burning in the region of the cardiac orifice of the stomach, thence spreading up along the œsophagus to the pharynx. This man died, and on dissection, there was only to be found the *debris*, as it were, of the mucous membrane. From the cardia to the pylorus, the sub-mucous cellular tissue was quite naked, being stripped of its mucous membrane, but still preserving its accustomed white colour, being merely a little thickened. In some spots, there were the remains of the villous coat, recognized by a pale red col-

our, and some degree of prominency. There were also tubercles in the lungs, and ulcerations in the intestines.

M. Andral confirms the observations of M. Louis,* respecting the state of the mucous membrane of the stomach in those who die of phthisis; but it is curious that in these cases, the *softening* of the membrane is confined to certain portions of the stomach, especially the cul de sac. and the splenic extremity of that organ—while the *induration* is more commonly found about the pyloric orifice.

Here M. Andral starts the question—"are these softenings of the mucous membrane to be considered in all cases as the product of inflammation?' Some writers have left the subject undecided—some have attributed the phenomenon to a peculiar morbid process different from inflammation—while others feel quite confident that a mucous membrane softened is a mucous membrane inflamed. The question is of importance, and M. Andral dedicates a few pages to the discussion.

What do we learn from the anatomical characters? They teach us that, in the greater number of cases where there is softening of the mucous membrane, there will be also found other unequivocal indications of phlogosis, as redness, &c. It is also to be remarked, that if we examine the effects or consequences of inflammation in other structures of the body, we shall find *softening* a very common occurrence. The inflamed cellular membrane is softened as well as reddened and infiltrated with pus. M. Dupuytren has long ago pointed out the extreme lacerability of the cellular sheath of arteries, when these vessels have been in a state of inflammation, whence proceeds the premature division of this sheath by the ligature. The serous membranes when inflamed, become softened. So does the cutaneous tissue. If we examine around a variolous pustule, we shall often find the parts so softened, that they are lacerated by the least force. At the termination of synovial inflammations, acute or chronic, who has not observed the ligaments and other parts surrounding the articulation, reduced almost to a pulp? Even the cartilages, in these cases, are sometimes rendered a pultaceous mass. The periosteum at first is hardened, but ultimately softened by inflammation. In what cases do we find softening, and finally ulceration in the transparent cornea? It is almost always consecutive of inflammation of the conjunctiva. In the parenchymatous structures, one of the first effects of inflammation is to diminish the force of cohesion. Lallemand and many others have demonstrated the softenings of the brain to be consequences of inflammation. The lungs and the liver often present softenings, as well as indurations, the products of inflammation.

But in some cases of softening of the gastric mucous membrane, the pale colour is preserved, so that the part, on a superficial inspection, appears perfectly sound. Are these conditions also to be considered as the effects of preceding inflammation? M. Andral hesitates

* See volume two of this Series, p. 173-181. Also Vol. 3, p. 530, and Vol. 4, p. 492-497.

not to answer in the affirmative. It is to be remembered, that redness is not an infallible accompaniment of inflammation. The serous membranes will be so inflamed as to throw out pus, and yet preserve their pale colour. They will not *redden* in inflammation, but they will *soften*. No one will deny that the induration of cellular membrane around old ulcers is a product of inflammation—yet this induration often presents a perfect whiteness—"une parfaite blancheur." The softening of the transparent cornea is often unpreceded and unaccompanied by redness. Paleness of these softenings of the gastric mucous membrane then, is no proof that the phenomenon is not a sequence of inflammation. So much for morbid anatomy:—let us now look to symptomatology.

There is a certain proportion of instances in which the symptoms of inflammation are observed during life, especially where the gastritis has been acute, and where the mucous membrane has been found red as well as softened. When, on the other hand, the affection is chronic, two states of the case may present themselves:—1mo, there may be symptoms of inflammation, more or less marked, such as epigastric pain, augmented by the ingestion of aliment or drink—nausea or vomiting, &c. These are symptoms which we observe during life, in cases where dissection has shown unequivocal evidence of inflammation in the stomach, as thickening, ulceration, &c. of the inner membrane. 2ndo. we may find the mucous membrane considerably softened, on dissection, while during life, there were few, if any symptoms of gastritis. There may have been no vomiting—no loss of appetite—no pain—no thirst—no disturbance of the circulation. The patient merely complains that the digestion is more or less uneasy and imperfect, and that he loses flesh and strength. But then let it be observed, that it is not in cases of softening of the stomach alone that we find this absence of symptoms characteristic of inflammation. The stomach has often been known to be the seat of extensive and deep ulcerations, large fungous tumours, and various other degenerations of structure, without any remarkable disturbance of its functions, more than what are mentioned above, as attendant on softening of the mucous membrane. It is therefore necessary to conclude either that these softenings are sometimes the effect of inflammation and sometimes not—which would be absurd—or to conclude that they are the products of inflammation at all times, though not always accompanied by evident symptoms of such state in the living body. This last proposition is the only one that is admissible:—and this admitted, we are forced to conclude that, according to the laws of pathology, every phlegmasia may exist under two forms—one, *manifest*, and one more or less completely *latent* or concealed. This is a law which morbid anatomy alone could ever have revealed—for if there never had been dissections, we never should have suspected internal inflammation where the external symptoms were absent. "Thus the study of symptoms as well as of morbid anatomy leads us to conclude that softening of the gastric mucous membrane is the product of inflammation."

Looking to etiology, we shall find that the greater number of agents

in the production of these softenings, belong to the class of irritants. Poisons introduced into the stomach of animals produce the phenomena in question. Our author found this softening, in a very high degree, in the stomach of a child to whom sulphuret of potash had been given three months previously, for the cure of croup. From the time this medicine had been given, the child had vomitings, and daily emaciated. At La Charité, our author has had frequent opportunities of opening the bodies of those who had been addicted to intemperance in alcoholic liquors, and one of the most common changes found in their stomach, is this softening, with redness or whiteness of the mucous membrane. That softening, which M. Cruveilheir has denominated "*gelatiniform*," observed in the stomachs of children that have been prematurely weaned, and then fed on gross aliments, may be readily placed in the same class with that of which we are treating. In other organs, we constantly see these softenings produced under the influence of unequivocal causes of irritation. Thus, after blows or falls on the cranium, the brain inflames, and ultimately becomes softened. So when foreign bodies are introduced and remain in parenchymatous structures; or when morbid growths are there developed, the parenchyma becomes irritated by their presence—inflames—and finally softens. This we frequently see in the brains of children around tubercles there. Undoubtedly these softenings sometimes become manifested in the stomach and other organs, without any apparent preceding cause of irritation; but if they exhibit the same anatomical characters and the same symptoms as those developed after evident causes of irritation have been applied, we may safely conclude that they are, in both instances, of the same nature. Could we maintain the existence of an inflammatory and a non-inflammatory arachnitis, because the one was produced under the influence of unequivocal causes of irritation, and the other without any apparent cause at all? If it be objected that these softenings of the stomach and brain are seen in people of different ages, the old and the young—the feeble and the robust; the same may be said of inflammation itself, which happens in the weak as well as in the strong—with this difference, that the local inflammation is announced by a different train of symptoms in the two classes of subjects. Thus in a young, plethoric, and irritable person, endued with great nervous susceptibility, a very small softening of the stomach will produce a great general re-action in the system, followed by intense fever, delirium, convulsions, disturbance of all the functions, and sudden death. In individuals placed under opposite conditions, this softening may commence, run its course, and disappear, without exciting any other symptoms than those attending what is called indigestion. The former may destroy life in a few days—the latter may last for years in a chronic state. It is thus that softening of the brain, in a young person, will be attended with convulsive movements in the system, while in old subjects it will only produce simple paralysis.

Let us now look to therapeutics. We shall find that tonics and stimulants applied to a softened mucous membrane always aggravate

the symptoms, and often change into evident gastritis what was before only an obscure dyspeptic affection. On the contrary, antiphlogistic remedies mitigate the symptoms.

In respect to the volume or thickness of the mucous membrane of the stomach, it may be of its natural or normal dimensions—it may be more or less augmented in thickness—or it may be attenuated. In the first condition, which is not very rare, we find the membrane either of a red or brown colour, or of various colours, and more or less softened in texture. The augmentation of thickness in the mucous membrane is of very frequent occurrence in chronic gastritis. It is sometimes accompanied by a softening, sometimes by an induration of the membrane. In the *first* case, the thickening ought rather to be called a tumefaction of the parts, occasioned by an afflux of fluids under the influence of an inflammatory stimulation, in the same way as the reticular tissue of the skin is swelled by the irritation of a blister. This phenomenon (tumefaction with softening) is more frequently the consequence of acute than of chronic gastritis, though occasionally seen in the latter disease. On the other hand, *augmentation of volume with induration*, is exclusively confined to chronic inflammation, and furnishes one of the least equivocal evidences of the previous existence of that malady. In this case, there is a real increase of density—a veritable *hypertrophia* of the mucous membrane, the consequence of morbid or excessive nutrition, when this tissue is long the seat of irritation and inflammation, and consequently receiving more blood than in a state of health. But if, instead of this simple hypertrophy of the membrane, a softening or ulceration takes place, the law of excessive irritation will be changed, or absolutely perverted.

Whether thickening of the mucous membrane be accompanied by softening or induration, it may invade at one time, a great extent of surface, or be confined to a few insulated points. These points may be scarcely perceptible to the eye, and only appreciable when the membrane is detached. From this species of disorganization result those appearances which have been termed exanthemata, vegetations, and tumours of various forms, textures, and dimensions. M. Andral thinks that great error has been committed by giving to certain of these forms appellations which convey the idea of a specific nature, and draw the attention of the physician from the original cause that produced them—irritation and inflammation, chronic or acute, of the mucous membrane.

In respect to the intimate texture of these morbid growths, they may be divided into two classes. In the first may be ranged all those tumours, vegetations, &c. which appear to be of the same texture as the indurated or softened membrane itself. In the second class are to be ranged those tumours, whose structures do not correspond with sound or unsound membrane. The first class, he thinks, will be readily attributed to an inflammatory process. The nature of the process, however, by which the morbid growths comprehended in the second class, for instance, encephaloid tumours, are built up, admits of some doubt; and although M. Andral is

inclined to place chronic inflammation as the cause of both classes, he admits that more facts are wanting before positive proofs can be adduced of the truth of his doctrine.

Finally, there are cases where the mucous membrane of the stomach, instead of being thickened, is actually attenuated, and has undergone a real atrophy. It is especially about the great *cul de sac* of the stomach that this appearance, as well as the morbid softening, is usually seen. In two cases only has our author found this attenuation in the neighbourhood of the pylorus. Can this atrophy or attenuation, says he, like hypertrophy and softening, be attributed to inflammation? He concludes in the affirmative. A woman, aged 36, died in the CHARITE, in the month of March, 1825. During the last three months of her existence she had frequent vomitings. On dissection, the stomach presented several red points and patches, and in the splenic extremity there were softenings and attenuations, situated both in the red patches and in the intervening spaces. Still our author admits that this attenuation of the mucous membrane may take place in the same way as atrophy of the muscles in phthisis, without any actual inflammation.

Ulceration of the mucous membrane of the stomach is infinitely more rare than that of the small and large intestines. Ulceration is an extremely rare phenomenon in acute *gastritis*, unless where poisons have been introduced, while in acute *enteritis*, ulceration is very common. On the other hand, chronic gastritis pretty often shows ulceration of the living membrane, generally in one spot only, of greater or less diameter, round which the mucous membrane may be sound or unsound.

PART II.—*Alterations of the other Tissues or Coats of the Stomach.*

The FOLLICLES, situated under the mucous membrane of the stomach, become the seat of important morbid alterations, according to our author. These lesions respect the volume, the structure of the parietes, and the secretions of the follicles. Stomachs are sometimes found where the most attentive examination of their internal surface, can scarcely discover any crypts—which absence of follicles will equally obtain in stomachs apparently sound, and in those where acute or chronic inflammation had evidently existed before death. On the inner surface of other stomachs, the follicles are much more visible. In a state of real hypertrophia they present themselves like rounded granulations, insulated or agglomerated in various parts of the stomach. It is not probable that, in such cases, those follicles are entirely new formations; but, too small in their natural state to be appreciable by the naked sight, they become so by inflammation. These preternatural developements of the follicles are either partial or general. In the former case, they are principally observed about the cardiac orifice, or near the pylorus. In this last situation, the crypts are sometimes so much enlarged and agglomerated, that the internal surface of the stomach resembles the structure of the duodenum, especially the first flexure of this organ.

When the developement of the crypts is general, two varieties are

presented on the internal surface of the stomach. Sometimes a great number of granulations are extended over the whole surface, of various sizes, white, grey, red, or brown, in the centres of which it is often possible to perceive a small orifice surrounded by a small red or black circle. Sometimes these crypts are so greatly magnified, that they have a nipple-like appearance, which would induce one, at first view, to suppose there was a morbid structure of the mucous membrane itself; which may sometimes be the case; but, on attentive examination, it will generally be found that the phenomenon is owing to enlargement of the follicles. This mammillary appearance is usually accompanied by a grey or brown colour of the mucous membrane, and, during life, these are the symptoms of chronic gastritis. More than once our author has found only this mammillary structure, when there had been every reason to believe that cancer of the stomach existed, from the symptoms, such as lancinating pain in the epigastrium, yellowish tint of countenance, marasmus, vomiting of food, and also of black matters, &c.

In the horse's stomach certain appearances sometimes present themselves, which M. Andral thinks deserving of notice. They are roundish tumours on the mucous membrane, from the size of a cherry or a walnut, to that of a large orange. The mucous membrane passes over these tumours, and in the centre of each is an orifice capable of admitting a probe, which passes readily into the interior. This interior is found not to be of solid structure, but a pouch filled with a liquid of varying kind and consistence—sometimes resembling mucus, sometimes pus—and sometimes of a grumous character, or resembling honey, or that which is squeezed from melicerous tumours of the skin. The parietes of these tumours are as variable as their contents. In some tumours they are very thin, and appear to be merely prolongations of the mucous membrane, covered outwardly by a layer of dense cellular tissue. In other tumours this layer assumes a fibrous and even a cartilaginous appearance. In these tumours, M. Andral has often found a great number of the ENTOZOÆ, having all the character of the *nematodes* of Rûdolphi, being of a beautiful white colour, one or two lines in length, the thickness of a hair, and possessing great agility in their motions. These animals have been observed issuing from the central aperture, and spreading themselves over the interior of the stomach. They were not the products of any putrefactive process, since they were observed in horses opened the very instant after they were slaughtered. The constancy and regularity of the orifices in the centres of these tumours, leave little doubt that they are the mouths of dilated follicles. This would be presumed from the examination of the larger ones—but, when they are traced through their various gradations, all doubt vanishes, as we come at last to the follicles themselves in scarcely a state of enlargement. From these and other facts, our author is led to conclude that many of those tumours and other morbid growths which are considered as adventitious or heterogeneous structures, are only excessive or morbid developements of natural tissues. In his Clinique Medicale (vol. 3) M. Andral has endeavoured to show that this is the case in

pulmonary granulations, or incipient tubercles; and at the close of this memoir, the same will be attempted in respect to the principles of formation in certain diseases of the stomach, especially scirrhus.

The fluids secreted by a healthy stomach may be very much altered from their natural condition during chronic gastritis. An individual entered the CHARITE with all the symptoms of this disease, having daily vomitings of some pints of a glairy white mucus, resembling the white of egg. There was this remarkable circumstance, that the patient never threw up any of the food or drink which was taken into the stomach. On dissection, nothing was found but a thickening (hypertrophie générale) of the mucous membrane, with a brownish tint in colour, and a strong developement of the follicles.

Among the matters found in the stomach after death, (in chronic inflammation,) and of which prodigious quantities are sometimes thrown up during life, we may remark on the black or coffee-ground looking fluid, which has so often engaged the attention of pathologists. What is the nature of this fluid? Is it connected with any, and what special lesion of the stomach itself? Lately our author sent a quantity of this black matter, thrown up by a female in the quantity of a pint daily, to his friend, M. Lassaigne. It was found to contain much water, albumen, a free acid, of an organic nature, and to hold in suspension a colouring matter, insoluble in water, soluble in sulphuric acid, and presenting, when thus dissolved, a beautiful blood-red appearance. Submitted to calcination, it burned without swelling, and left a slight residue of a brick-colour, composed of oxide of iron, and traces of phosphate of lime, the same as is furnished by the colouring matter of the blood. Hence M. A. concludes that the black matters ejected from the stomach in certain diseases, are owing to the presence of an organic element, having a great analogy to the colouring matter of the blood. Such is the conclusion come to also by M. Breschet, in his work on Melanosis. In the 18th volume of the Dictionnaire de Medecine (*Art. Melanose*) M. Andral has adduced fresh proof in support of M. Breschet's opinion. In a stomach which he recently examined, this colouring matter was found under two forms—one, in which it existed free in the stomach; the other, in which it was combined, in several places, with the mucous membrane, giving that tissue a beautiful jet black colour. The black matter, then, which is vomited in cancerous affections (for example) of the stomach, is to be considered, M. Andral thinks, as identical with the matter of melanosis, and like that to be constituted of a colouring principle analogous to the colouring matter of the blood.

It is highly probable, however, that this colouring matter is the product of a *peculiar secretion*, like some of the numerous colouring matters, blue, green, yellow, &c. which so richly tint the skins and coverings of various animals.

It is supposed that black vomiting is a characteristic sign of a cancerous state of the stomach, and that ejected black matters come from the ulcer. This is clearly a mistake; for similar vomitings have been met with where no such ulcer existed. Our author has observed this phenomenon in people whose stomachs presented

on dissection, tumours of the sub-mucous cellular texture, (the scirrhus of systematic writers,) without any breach of structure. In other instances, where black vomiting had obtained, during life, he has found merely a thickening of the mucous membrane, or a mammillary configuration of its surface, with some alteration from its natural colour. In one case only, a woman, aged 39 years, who had vomited, while in the hospital, a fluid sometimes brown, sometimes black; who had complete anorexia, laborious digestion, diarrhœa, and habitual cough, there were found, on dissection, ulcerations of the ileum, cœcum, and colon, and some tubercles in the lungs. The mucous membrane of the stomach was pale and blanched throughout, except near the great cul de sac, where there were three or four red spots, occasioned by capillary injection. All the coats of the stomach were otherwise apparently sound, though, but two days before her death this woman had vomited a large quantity of black matters.

Into the composition of the gastric parietes two layers of cellular membrane enter—one between the mucous membrane and the muscular coat—the other between this last and the peritoneum. Both of these are connected by means of cellular prolongations which pass through the interstices of the muscular fibres of the middle coat. These layers often become the seat of inflammation, and consequently changed in their structure. These membranes are rarely altered in texture by acute inflammation of the organ—and very often escape the effects of chronic phlogosis. At other times, these tissues undergo the same fate as contiguous parts, and become the seats of various changes of structure. There are cases in which these cellular layers are attenuated, and finally even disappear—in other cases, they become softened into a liquid pulp, and also disappear. In such conditions, the parietes of the stomach lose a great proportion of their natural strength, and are sometimes ruptured in the action of vomiting. But augmentation of thickness and density is the most common effect of chronic inflammation in these tissues, and this is the morbid anatomy of what is generally described as scirrhus of the stomach. In proportion as these effects take place, these cellular layers differ from their natural appearance, and present numerous and remarkable transformations. The most usual appearance is that of a grey, bluish, or dead white homogeneous membrane, without any trace of vascularity, and both dense and friable under the scalpel. This is called scirrhus, *par excellence*, and to this denomination there is no great objection, provided we bear in mind its real nature—namely, a thickening and induration of natural structure, devoid of any specific distinction from thickening and induration of the cellular membrane in any other part of the body. Thus, in a great number of chronic diarrhœas the submucous cellular membrane of the large intestines, becomes much more developed than in health—in fact, it becomes hard, white, and homogeneous. If this change be general in the said intestines, and to no great extent, it is called a thickening of the coats of the colon or rectum; but if it be partial, and to a greater extent of density and thickness, then it is called a scirrhous

tumour, which is a palpable error—for there is no other difference between the two states than *degree.*

In some cases the induration of this tissue in the stomach goes on to an actual transformation into cartilage, of that soft and elastic kind, however, which we find in the fœtus.

If, instead of being white, homogeneous, and devoid of vascularity, it becomes full of vessels, it is no longer of a scirrhous nature, but takes the title of a cerebriform or encephaloid tissue, said to be developed in the parietes of the stomach. Formerly, our author admitted this distinction between scirrhous and cerebriform degenerations; but more minute investigations induce him to view them as only varieties of the same thing. He has seen them run into each other by insensible degrees, till all distinction was lost.

In these hypertrophied conditions of the cellular tissue of the stomach, we sometimes find cells or pouches, containing different kinds of fluid, varying in consistence and colour——sometimes resembling jelly, sometimes honey, &c. These have been called softened down scirrhi, but they are assertions without proof. These secretions are either infiltrated, as it were, through a certain extent of the cellular membrane, or more circumscribed, and, as it were, in cysts. If the activity of the vessels be considerable—if, in other words, the inflammatory action be in a certain degree, these cysts burst, and thus ulcerations are formed in the stomach, with discharges of puriform matter, or even fatal hæmorrhages. These secretions in the structure of the cellular membrane sometimes take on the tuberculous, sometimes the melanose character.

Hypertrophy of the gastric cellular membrane may be general, involving the whole parietes of the stomach, so that, when cut open, the organ does not collapse; but such is not a common event. Usually the hypertrophy is partial, and the pylorus is its ordinary seat. It is much more rarely found in the neighbourhood of the cardia. It seldom passes the limits of these openings to invade the structure of the duodenum or the œsophagus. In only two cases, our author has seen the disease spread to the lower third of the œsophagus, and there produce considerable stricture of the canal.

The muscular coat of the stomach generally escapes the disorganizing effect of chronic gastritis; but, occasionally, it becomes either hypertrophied, attenuated, or lost.

The blood-vessels also suffer considerable changes. Thus, beneath the softened mucous membrane, we often find very large veins in a kind of varicose state. The same is seen in the neighbourhood of chronic ulcers of the lower extremities. This dilated state of the veins often continues long after inflammatory action has ceased, and, in several instances, our author found the parietes of the vessels themselves thickened by inflammation. M. Ribes has published some interesting observations on the part which phlebitis plays in certain cutaneous inflammations, and our author was led to investigate the same subject in regard to gastritis. The following phenomena presented themselves to him in two cases. On laying open the large and dilated veins which ramified under the mucous

membrane, which was red and soft in one case, brown and hypertrophied in the other, he ascertained that the venous parietes were thickened, and opposed considerable resistance to the scalpel, feeling hard to the touch, and not collapsing after being cut into. In the other case, where the stomach was the seat of a large ulceration surrounded with vegetations, the enlarged veins were seen in great numbers around the disease, and one in particular was remarkably enlarged and indurated, and the venules or radicals which led to it from the ulcer were also thickened and indurated in the parietes. On laying them open, they were found filled with a solid substance, of a dark red colour, mixed with a semi-liquid of a purulent character. The mouths of veins are not unfrequently found open at the bottoms of ulcerations in the stomach, although no hæmatemesis may have occurred during life.

The lymphatic system of the stomach and intestines does not always escape the effects of chronic inflammation. They have been found by our author filled with a puriform fluid—their parietes friable, and of tuberculous character—in some cases the parietes are thickened, and have lost their transparency.

The pathological condition of the nerves, in various diseases, has hitherto almost entirely evaded our researches, and there seems but little chance of morbid anatomy throwing much light on this department. Disordered function in the nervous system is attended with so small a proportion of change of structure, that in some of the most painful diseases, as tic douloureux, there is nothing to be found, after death, in the nerve, which was the seat of such excruciating torments during life. So it is with the stomach. M. Andral has dissected, with the greatest care, the nerves leading to and distributed on this organ, where the patients had died of painful gastric affections, of organic diseases of the stomach, and where there had been no disease or pain in the stomach—yet the nerves had the same appearance in all! The following reflections, however, are very just.

"Nevertheless, we cannot for a moment doubt that there are alterations produced by diseases in the nerves, although we are, as yet, unable to appreciate them by the evidence of our senses. There can be no doubt that the various sympathetic affections of different parts of the system, dependent on disorder of the stomach, are produced through the agency of its nerves, so remarkable for their distribution and numerous connexions. Neither can we doubt that, among the various disturbances of function which the stomach undergoes, there are many which imitate, more or less completely, acute and chronic gastritis, but which are, in reality, owing to a morbid state of the gastric nerves or the semilunar ganglia—hence, in some individuals, we have disordered digestion, in others, vomitings, and, in others, epigastric tenderness, pain, &c."

Gastritis, whether acute or chronic, rarely terminates in gangrene. When it does so, it is generally where there have been ulcerations and fungosities, around which gangrenous spots occasionally show themselves, and which take place when the powers of life are prostrated in the last stages of illness.

The stomach sometimes undergoes a change of volume, which is appreciable during life. The enlargement of cavity in a hollow organ is owing to various causes. Sometimes it takes place consecutively to an obstruction at the orifice of ejection, as we see in the heart, bladder, gall-bladder, &c. in which cases the parietes of the organ may remain of their natural thickness—be attenuated—or hypertrophied. At other times we find the dilatations take place in different organs, without any obstruction of the orifices whence their contents issue. This is especially the case with the stomach, which sometimes enlarges so as to almost fill the whole cavity of the abdomen, with or without any obstruction of the pyloric orifice. The following cases are curious.

Case 1. A woman, aged 65 years, meagre and miserable, began, about the month of June, 1821, to experience symptoms of an organic affection of the stomach, as difficult digestion, alternate anorexia and voracity, acid eructations, nausea, vomitings some hours after eating, pain in the epigastrium, &c. These symptoms increasing, she entered La Charite in March 1822, being then reduced to a state of great emaciation. The space occupied by the stomach in the abdomen was well marked—indeed it was evident that it occupied the greater part of this division of the body. Its great curvature rested on the pubes, and the lesser curvature formed a sweep a little above the umbilicus. The patient had constant pain in what corresponded with the region of the pylorus, exasperated at intervals. She vomited a great quantity of black matters, and could not keep any food on her stomach. She died about a fortnight after entering the hospital.

Dissection. The thoracic and cranial organs sound. The abdomen being opened, the stomach was seen filling almost the whole of the cavity, descending to the left iliac fossa on one side, and stretching thence to the same situation in the other. The intestines were entirely concealed by the stomach, which contained an enormous quantity of dark-coloured fluid, resembling that which had been vomited. The mucous membrane was perfectly white, but much softened, and, for some inches round the pylorus, it was abraded, and an ulcer formed. No muscular fibres could be seen opposite the part where the mucous membrane was wanting. The orifice of the pylorus was not much narrowed—on the contrary, it was capable of admitting easily the point of the finger. There was nothing particular in the appearance of the intestines.

It is difficult to imagine the cause of this enormous distension of the stomach, without any material obstruction to the exit of its contents. Our author's explanation is far from being satisfactory, and, therefore, we shall omit it.

Case 2. A young woman, aged 23 years, had always enjoyed good health, till, having met with reverses of fortune, she repaired with her family to Paris, and there became a tutoress in a public school. Her health now soon began to suffer—her appetite failed—digestion became difficult, and, in February, 1821, vomitings were

added to the other symptoms. Her food was not thrown up, however, till some hours after eating. She emaciated very fast. Leeches were repeatedly applied to the epigastrium, and various medicines were tried internally, but without avail. She entered La Charite in February, 1822, in the last stage of marasmus. Her complexion was tinted—vomiting of food or drink took place almost immediately after swallowing them—slight pain in the epigastrium, which is soft, and presents no tumour or fulness—tongue natural—constipation habitual—pulse feeble—skin dry. She died on the 14th March.

Dissection. The stomach was dilated, and covered the greater number of the abdominal viscera. Its greater arch touched the pubes. The cavity of the organ was filled with a yellowish green liquid—the internal surface had a reddish or rosy tint, but in some places, especially near the splenic extremity, it was quite pale. There was a space, the size of a person's hand, where the mucous membrane was softened, and easily scraped off. The parietes of the stomach were, generally speaking, extenuated, and easily torn. The muscular tunic was remarkably wasted. The small intestines were much contracted, not larger than those of a dog, and their internal surface pale. There was some disease in the mucous membrane of the transverse arch of the colon. The liver was very much enlarged.

In this memoir, it will be observed that M. Andral attributes to chronic gastritis, several alterations of structure which usually have specific names, and are supposed to have specific characters—as scirrhus, melanosis, &c. These changes of structure have this one character in common, namely, that they are preceded or accompanied by various degrees of vascular activity, a circumstance which may be proved, or at least inferred, *first*, from the anatomical characters; *secondly*, from the symptoms during life; 3*dly*, by the nature of the exciting causes, which give these diseases their developement; 4*thly*, by the treatment found to be most advantageous, namely, the antiphlogistic. But to say that all these diseases have one common character—sanguineous congestion—is only to discover a certain link by which they are connected—not the causes of their differences. How is it, it may well be asked, that, during the existence of this vascular activity, or sanguineous congestion, we see spring up such opposite kinds of changes of structure? M. Andral himself candidly acknowledges that we must take into account the predisposing causes, (or, in other words, the specific predispositions,) in order to explain or reconcile such different results from the same inflammatory process—and that we must regard the sanguineous congestion as merely an occasional, or *exciting cause*.

"By the antiphlogistic treatment, unfortunately, we only combat this last, (the inflammatory or exciting cause,) but make no impression on the specific predisposition, which, once excited into action, goes on to the formation of divers changes of structure, according to the nature of the predisposition. Hence the frequent inutility of blood-letting, which only attacks one of the elements of the disease. There are, it is true, cases where this sanguineous congestion plays a distinguished part; but there are others, where it appears quite a

subordinate agent—and where, after a trifling *irritation*, we see produced the most formidable degenerations of structure in the stomach. There are cases, again, where this connecting link, or common feature, (sanguineous congestion,) entirely disappears, and there is no proof that it ever existed. The disease should not then be called gastritis. Such are the different *neuroses* of the stomach—such are also certain cases of softening and extenuation of the coats of the stomach, which may be attributable to a real diminution of the act of nutrition, such as we see in the muscles of people who die of various chronic maladies." 193.

From this extract it will be seen that M. Andral modifies greatly the doctrine of inflammation, as applied to these different organic changes in the stomach, and that he views it as no more than a connecting link (and not always even that) which binds them in one genus, without at all accounting for their formation or their variety. "Pourvu que l'on ne regarde ce mot (inflammation) que comme indiquant *le lien* commun qui les unit mais nullement comme rendant raison de leur formation, comme pouvant expliquer leurs innombrables varietés."

We have placed this minute description of anatomical changes in the stomach on record in our Journal, because M. Andral is universally allowed to be one of the most accurate observers, and reporters of the present day. His opportunities for *post mortem* investigations in La Charite, are very great, and he turns them to good account. The document we consider as a very valuable one, especially to the pathologists of this country, where the means of research are limited, and where we are sorry to say the zeal for pathological inquiries is far below par. We will not lay the flattering unction to the souls of our countrymen upon this nor upon any other occasion, where the interests of science are at stake.

2. FEVER.*

Dr. Chambers has detailed some cases of fever occurring in St. George's Hospital, by which we are enabled to form some idea of this intelligent physician's practice, as well as doctrinal views of the disease.

Dr. C. is a warm advocate for the free use of calomel, assisted by other purgatives in the treatment of the common continued fever of this country. We can not say, however, that our observations have led us to entertain quite such confident expectations from purgation in fever, as Dr. C. appears to have imbibed. "Those who have been in the habit of treating this disease, must have observed that, in most instances, when purgatives have been early and steadily administered, all the symptoms have, in a short time, yielded to them."

A case is first related by Dr. C. where a patient was admitted into the hospital, with the common symptoms of fever, where the tongue was of a bright red colour—the bowels irritable—the motions highly

* Dr. Chambers. St. George's Hospital. Med. and Physical Journal, October, 1826.

depraved, and the abdomen tense and painful. Leeches to the belly —five grains of calomel with antimonial powder at night—a rhubarb draught next morning—and the common saline effervescing medicine through the day. In a very few days of this treatment the patient was convalescent, and ordered to take bitters.

Dr. C. observes, however, that, notwithstanding the great advantages to be derived from this practice in general; still, some cases of fever will occur where, although the symptoms are mitigated, the patient continues to labour under the irritation of fever. "It is under these circumstances, that mercury, exhibited in small and repeated doses, appears to exert the most decided influence over the disease." What then are the circumstances or symptoms occurring in the progress of continued fever, which should induce the practitioner to change his mode of treatment, by abandoning the use of direct purgatives, and adopting the alterative practice? Dr. C. naturally conceives that, when this distinct remission or cessation of early symptoms has taken place, the primary fever is subdued—"and what remains of constitutional disturbance depends on those organic lesions which are now well ascertained to be ordinary consequences of continued fever." These lesions, in their turn, excite a new febrile action in the system, "which ought by no means to be considered as a relapse of the original disease." It is, in fact, a secondary fever, depending on irritation produced by structural injury; and is clearly distinguishable, Dr. C. thinks, from the primary disease, "by its remittent or hectic character," as well as by the extraordinary irritability, joined with prostration of strength, which accompanies it after it is established. The following case is offered in illustration.

Case. T. Kelly, aged 45, a labourer, was admitted on the 9th of August, 1826, the fever being of nine days standing. He had head-ache, fulness and pain in the abdomen, especially about the epigastrium, increased on pressure—pulse 110—skin hot. He was put on fever diet, which is chiefly farinaceous decoctions—to lose 12 ounces of blood, and to take five grains of calomel at night, with senna draught in the morning. In five days of this treatment, the local pains and uneasiness were gone, the pulse reduced to eighty, and soft. He only complains of debility. The calomel and purgative medicines were left off. The next day, the skin was dry and hot, the tongue furred, &c. Three grains of calomel were ordered with three of antimonial powder, every four hours. A blister to the nucha. He continued the mercurial, the quantity being gradually reduced, for ten days, by which time he had regained his natural manner, and every function was restored to a state of integrity.

Without, for a moment, questioning the principle which Dr. Chambers has laid down, we may be permitted to doubt, whether the foregoing case affords an illustration, or at all events, a proof of it. We see that on the 14th, all local pain and uneasiness had gone, and debility alone remained. The aperients being left off, he had camphor mixture and a few drops of spir. ammon. aromat. It is proba-

ble, though not stated, that at this period some allowance of food was made, beyond the *fever diet.* The very next day the skin was hot and tongue dry, &c. without any return of the local pain or uneasiness. Is it not probable that this relapse was occasioned by some little irregularity in diet, rather than by any "organic lesion" produced during the preceding attack? But Dr. Chambers shall speak for himself.

"It is not intended here to enter at length into the pathology of these changes. It will suffice to say that, when this cessation, or distinct mitigation, of the early symptoms of the disease takes place, it is probable that the primary fever has been subdued, and that what remains of constitutional disturbance depends on those organic lesions which are now well ascertained to be ordinary consequences of continued fever. These lesions in their turn, excite a new febrile action in the system, which ought by no means to be considered as a relapse of the original disease. It is, in fact, a secondary fever, depending on the irritation produced by structural injury, and is clearly distinguishable from the primary disease by its remittent or hectic character, as well as by the extraordinary irritability, joined with prostration of strength, which accompanies it after it is established." 353.

It happens occasionally thatlong before the primary disease has been overcome, the secondary irritation has commenced, so that, when the former is afterwards subdued, the latter presents itself to us in an aggravated form, and is, besides, the more intractable, because the strength of the patient is proportionally diminished. A case in illustration is added, for which we beg to refer to the Journal itself. We think the principle which Dr. C. has laid down is correct, and the practice judicious.

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3. LIGATURE OF THE SUBCLAVIAN ARTERY. BY BARON DUPUYTREN.*

Case. Charles Lechevalier, 37 years of age, formerly a soldier, entered the Hotel Dieu, on the 27th February, 1819, for a false or consecutive aneurism of the left axillary artery. He had been wounded in the shoulder of that side, while serving in Spain, in the year 1811. The wound was made by a pointed instrument, but healed in three weeks. Two months afterwards, however, he perceived a small tumour in his arm-pit, attended with pulsation, and in the course of two years' captivity, it had acquired the size of an egg, and the pulsations were become very strong. After a long and toilsome march of 900 miles back to France, the tumour rapidly increased, and soon reached the size of a child's head, completely preventing him from following any occupation. On this account he came to Paris, and entered the Hotel Dieu.

The cicatrix of the original wound in the upper and posterior part of the shoulder was still visible. The aneurism was now the size of a

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* Repertoire, No. 2, (Hotel Dieu.) Reported by M. Marx.

child's head of 12 months old. It was unequal on its surface, and covered with large veins, shining, tense, and throbbing in unison with the heart. There was numbness of this arm, and no pulsation at the wrist of that arm. The pulsations of the subclavian artery, however, were very strong, and pressure there stopped the beating in the tumour.

Nothing but the ligature presented any chance of saving this man's life, and the question arose, whether it should be applied *citra vel ultra tumorem?* Baron Dupuytren does not appear to entertain a favourable opinion of the method lately practised in this country by Mr. Wardrop.* The course of the subclavian artery on the left side may be divided into three portions—from its origin to its entrance between the scaleni muscles—its passage through these muscles—and its course to and over the first rib. The second portion of its course was selected by the Baron, for several reasons, among others, because the artery is here separated from the vein, and also from the plexus of nerves. Besides, the anterior pillar of the scaleni is a sure guide to the artery.

The patient being prepared for the operation, an incision was made in a slanting direction, an inch above the clavicle, through the integuments, by which some vessels were divided that required tying. The incision was then continued—the scalenus sought and found—and this muscle divided close to its insertion by a bistoury. The artery was thus easily laid bare, and its pulsations could be stopped by pressure of the finger at the bottom of the wound. A bent silver probe with an eye armed with a triple silk ligature, was passed under the artery, the other end brought out—the cord tied—and all flow of blood through the vessel arrested. The drawing of the ligature did not cause any pain in this operation, which circumstance is attributed, and probably with justice, to the situation which was selected for securing the artery. M. Dupuytren did not adopt the common continental practice, on this occasion, of placing a spare ligature ("Ligature d'attente") on the vessel. There was no hæmorrhage—the wound was simply dressed—and the patient put to bed. In the course of the day he complained of some pain in his throat, and he was bled by way of precaution. The night was tranquil—the arm preserved its temperature and usual sensibility—there were some dartings in the tumour. The second and third days were passed in the same favourable state, and the patient seemed as if he had not undergone an operation. At the end of six days, the tumour was considerably diminished, and the patient had experienced no inconvenience. He had had no motion the while, and a purgative was administered, (an ounce of castor oil,) which cleared the bowels. On the 11th day, the ligature came away, without any discharge of blood. By the 17th day the wound was contracting, the suppuration diminishing, the tumour was reduced one third, and offered no pulsation. By the 30th day the wound was cicatrized, the patient began to use his arm, the tumour was daily decreasing;

* *Apropos*, we wish Mr. W. would favour the public with the final result of the operation on the old lady's carotid.

but it presented symptoms of suppuration. Cold astringent applications were used. By the 78th day the tumour was reduced to one-fifth its former volume, and was still getting smaller. All symptoms of suppuration had vanished. The heat, sensibility, and mobility of the member were now nearly the same as in the other arm. The arteries at the wrist, however, as might be expected, presented no pulsation, although they felt full of blood.

The man was discharged from the hospital, and took to his usual occupations, which he pursued for three years, without the least inconvenience, till some heavy labour determined an inflammation in the arm-pit, for which he again entered the Hotel Dieu, on the 16th July, 1822. On examination, a tumour, the size of a man's fist, was found in the arm-pit, the integuments being inflamed and attenuated, and the swelling pointing and threatening to burst. It did not pulsate—the patient had had shiverings. Cataplasms were applied, and in a fortnight, it burst spontaneously and discharged a large quantity of matter of a peculiar kind. The symptoms now declined rapidly, and the man was soon discharged from the hospital perfectly cured. He has since remained well.

We can not help expressing our conviction that the place which Dupuytren selected was the very best that could be pitched upon for securing the artery. When we read the descriptions of this operation, as heretofore practised—the diggings, the scoopings, the tearings, and the hæmorrhages, and compare all these with the simple and successful operation of the Parisian Cooper, we can not withhold our meed of applause for the ingenuity with which the operation was devised, and the dexterity with which it was executed.

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4. WOUND OF THE CAROTID ARTERY.—MR. TRAVERS, MR. FLEMING.

In the October number of the Medical and Physical Journal, Mr. Travers has related a case of wound of the external carotid artery, behind the angle of the jaw, for which a ligature was placed on the common trunk. The patient was a man of colour, strong, and about 35 years of age, who was brought to St. Thomas's Hospital, on the morning of June 27, 1826, with a small penetrating wound near the angle of the jaw, on the right side, apparently inflicted by a penknife while he was in a state of intoxication the preceding night. A surgeon who had been called, thrust a piece of sponge into the wound, and applied a bandage; the man was then conveyed to the hospital, and was in a state approaching to syncope, the extremities being cold, the face pale, pulse scarcely perceptible, intellects disturbed. On removing the dressings, a terrific hæmorrhage ensued, but was restrained by firm pressure. Mr. Travers having arrived, dilated the wound, removed a large coagulum, and endeavoured, but without success, to discover the bleeding orifice. Finding that pressure on the common carotid restrained the hæmorrhage, Mr. Travers resolved to tie that vessel. We need not describe this operation, as every pupil sees it often performed on the dead body.

Immediately after tightening the ligature, a feeble pulsation was perceptible *beyond* it, as also a slight oozing of blood, both of which soon disappeared. The wound was then dressed, and the patient put to bed, with his hands secured, he being highly delirious. 28th. He is quiet and sensible, but morose; there has been very little hæmorrhage. Nothing particular occurred till the afternoon of the 29th, when a sudden excitement took place—the patient rushed from his bed, ascended the gallery of the operating theatre, and jumped from thence into the area, where he alighted on his feet—proceeded from thence to the great stair-case, and leaped over the balusters, from a height of 20 feet, alighting on a stone pavement, with no other injury than a slight bruise of one arm. He was seized and secured in bed. 30th. This morning he is again delirious, and succeeded in tearing off the dressings, but without doing mischief. July 2d. This morning he is delirious again. He was cupped on the temples, and had a large dose of calomel administered. 3d. The symptoms were:—countenance sunk, lips pallid, disposition to coma, pulse 72—wound healthy and granulating. 5th. A decided improvement. 9th. The ligature came away. There is still a wildness in his manner and countenance—wound filling by granulation—return of appetite. 12th. A paroxysm of delirium—appetite good. 15th. Had a cold shivering fit yesterday evening—granulations pale. 19th. Continues to improve. 27th. Ditto. Aug. 8th. Has been daily walking about since last report. Has had another slight shivering fit. The incision is healed, except about a quarter of an inch, whence a copious discharge issues. 18th. Hæmorrhage, twice, to the amount of eight ounces each time; which was restrained by pressure. 20th. Four hæmorrhages in the course of the day, but not to any great extent. 21st. Three bleedings. 22d. It is now necessary to keep up constant pressure. 23d. It was resolved to endeavour to find the bleeding vessel and secure it. In this attempt, at least two pints of florid blood, "in a full uninterrupted stream," were lost in less than two minutes. This hæmorrhage was repressed by the sponge and pressure—but the countenance assumed a ghastly hue, and in an hour and a half he expired.

On Dissection, the cavity of an abscess was found, about the size of a pullet's egg, at the bottom of which was seen a portion of the entire cylinder of the carotid artery, about one-third of an inch in length, insulated, both above and below, by an intervening space of about one-third of an inch. The orifice of the lower portion of the carotid was circular, but its calibre diminished; and, on slitting it open, it was found that a plug of adhesive matter filled the vessel, and completely secured it against hæmorrhage. Nearer the heart was a long and firm coagulum of blood. The orifice of the upper part of the trunk was irregular from ulceration. It was from this part the hæmorrhage had proceeded, by reflux through the opposite carotids and vertebrals. On examining the artery at the site of the original wound, an aneurismal pouch, as large as a sparrow's egg, was found opposite the origin of the facial artery.

Before proceeding to Mr. Travers' remarks on this case, we shall

take the opportunity of rescuing from oblivion a similar accident and a similar operation, the *latter* performed under more unfavourable circumstances, and yet with more fortunate results. The accident occurred in 1803, on board His Majesty's ship the Tonnant, of 80 guns, of which ship the late Mr. Fleming was then surgeon, and the present Dr. Coley, of Cheltenham, the assistant surgeon. The operation of tying the carotid artery was thus performed the year before Mr. Abernethy's case was published. The document is registered in the Archives of the Naval Medical Board of that period, and is authenticated by Dr. Coley, who accompanied the patient to Plymouth hospital, when cured of the wound and the operation.

"*Case.* On the 9th day of October, 1803, Mark Jackson, a servant on board His Majesty's ship Tonnant, attempted to commit suicide. When called to him, I found that he had bled most profusely from a large wound across the throat. The bleeding vessels were secured by ligature as quickly as possible; and when the blood was cleared away, I was enabled to ascertain the extent of the injury, and the critical situation of my patient. No pulse could be felt at the wrists; the pupils were dilated; the temperature of the body considerably diminished; and, in fact, he had the appearance of a corpse from which life had recently departed. The wound was about four inches in length, dividing the trachea, between the thyroid and cricoid cartilages, the two superior thyroid arteries, the internal jugular vein, and grazed the outer and muscular coats of the carotid artery. The mouths of all these vessels (except the last) had been tied in the first instance, and I now brought the divided parts, as well as I could, into contact, and kept them so by securing the head well forward on the chest.

"A small quantity of wine was got, with difficulty, into the stamach; and nearly two hours elapsed before he was sufficiently recovered to admit of being removed to the sick birth.

"On the following morning he was low and faint. There was considerable tumefaction of the parts, which prevented his swallowing; and nourishing glysters were therefore thrown up. In the course of the day the pulse could be felt at the wrists, beating feebly about 100 in the minute. The wound put on a favourable appearance, and he enjoyed good nights. On the third day he was much troubled with a cough, which made me apprehensive of the rupture of the remaining coat of the artery: but all remained safe for the present, and the enemas were regularly administered.

"On the 15th of October, the ligatures came away, and the favourable appearance of the wound induced me to hope that all would terminate well. But the cough increased in violence, occasioned by the discharge gaining admittance into the trachea; and on the evening of the 17th, during a violent paroxysm of coughing, the artery burst, and my poor patient was, in an instant, deluged with blood! The spectacle was rendered still more horrid, by the danger of suffocation, and the torrents of blood that issued from the mouth and nose! Several attempts were made to secure the artery, but all failed, from the degree of ulceration that extended along the tube, and syncope alone rescued the man, for a time, from actual death. In this dreadful situation, I concluded that there was but one step to take, with any prospect of success; namely, to cut down upon, and tie the carotid artery below the wound. I had never heard of such an operation being performed; but conceived that its effects might be less formidable, in this case, than in a person not previously reduced by hæmorrhage. My resolution

taken, there was no time to lose; and I therefore made an incision along the anterior edge of the sternal portion of the cleido-mastoideus muscle; then separating the parts below with my fingers and the handle of a scalpel, till I brought the artery fairly into view, I passed a ligature round it, and put an effectual stop to any farther loss of blood.

"I had now time to reflect on what I had done. The neck appeared, from the cut inflicted by the patient himself, and my dissection, one continued wound, and presented an alarming aspect. For some time, my patient lay as if deprived of life. When, by the aid of stimulants, he was a little revived, the edges of the wound were brought together in the usual manner. I did not expect to find him alive the next morning. He was so, however, though he scarcely appeared to exist. His pulse could with difficulty be distinguished; and when spoken to, he appeared much confused.

"The nutrient glysters were directed to be continued, and were all retained. His countenance gradually recovered animation; the heat of the body was slowly restored, and he passed quiet nights.

"On the 20th of October, his pulse was 90, with increase of energy; and he seemed perfectly sensible. It is here worthy of remark, that till this morning he had no evacuation from the bowels during the space of eleven days.

"On the 22d, the glysters were discontinued, as the power of deglutition was so far recovered that he could swallow wine and soup. The wound healed so rapidly, that on the 24th, the ligature was completely buried in sound granulations, and required to be removed by a cautious dissection. He had this day an other evacuation, being the second since the operation.

"The remainder of the case may be summed up in a few words. His strength remained for a long time impaired, from the great loss of blood; but being well supplied with nourishing diet, he was discharged from the sick list on the 20th of December, 1803, and retained as an attendant on the sick till March 1804, when he was sent to Plymouth Hospital to be invalided."

This happened in 1803. In 1804, Mr. Abernethy's case was published in the Medico-Chirurgical Transactions, consequently the claim of priority is at least divided between Mr. Fleming and the latter gentleman. We can account for the case not having been published at the time.* Mr. Fleming sailed for the East Indies, shortly after the operation, where he soon after died. The Editor of this Journal recollects Mr. Fleming's mention of the case, when at Prince of Wales's Island, in the year 1805, and his intention to publish it on his return. He was doomed never to revisit his native shores, but friendship as well as justice demands that the operation should be recorded, as honourable to naval surgery. We believe that the above was the first instance in which the carotid artery was taken up, after a rupture or wound of the artery itself, and life preserved.

Mr. Travers observes that the case he has stated is valuable, as it establishes an important fact, "that ligature of the common carotid trunk is available to arrest hæmorrhage from a wound of the external

* The case was published in the Monthly Series of the Medico-Chirurgical Journal for January 1817—exactly ten years ago, by Dr. Coley.

carotid artery, so situated as not to admit of being included between two ligatures." The secondary hæmorrhage, after an interval of ten weeks, certainly does not impugn the accuracy of this statement, which is, indeed, verified, beyond all doubt, by Mr. Fleming's case. It is highly probable, as Mr. T. remarks, that in the first of the above cases, had the operation of tying the carotid trunk been practised distinct and at a distance from the original wound, and had this remained undisturbed, the coagulum would have been gradually absorbed—suppuration would have been prevented—and the case would have terminated like that of aneurism, with the separation of the ligature. Mr. Travers does not appear to have been aware of Mr. Fleming's case, as he talks of the want of a precedent for the operation which he has performed. We can refer him to the Journal mentioned below, for the details of Mr. Fleming's case, as published by Dr. Coley.

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5. INJURIES OF THE HEAD.*

* * * æt. 30, received a kick from a horse on the head, Nov. 1st. 1825. On admission into the St. Louis, immediately after the accident, the following symptoms presented themselves. Insensibility; a transverse wound, three inches long, over the right eyebrow, with depression of the bone to the depth of an inch; the depressed portions were joined so exactly at an angle, that it was impossible to introduce an instrument between them capable of elevating them. *Venesection—sinapisms to the feet.* In an hour the patient recovered his sensibility and speech. Nov. 2. Some excitement, lids contracted, pupils sensible to the light. As there were no symptoms of compression, M. Richerand decided on not applying the trephine. All went on well till the 13th; the wound had nearly cicatrized, but the contraction of the eye-lids remained. Some degree of pain and stiffness of the lower jaw now took place, but, on the 15th, the man left the hospital, which on the 1st December, he re-entered. The wound was then about an inch in length, the jaw could scarcely be opened, and the limbs were becoming rigid; this tetanic state made progress, and on the 15th he died.

Dissection, 24 hours after Death. The fragments of bone had pierced the dura mater, and were compressing the anterior lobe of the brain, which, at this part, was reddened and diffluent. This softening was greater in the cineritious than in the medullary substance. Arachnoid tunic, at the anterior and superior surface of the lobe, thickened, and covered with a sero-gelatinous layer of pus.

Remarks. Here the inflammation and disorganization of the brain seem obviously to depend upon the compression and irritation produced by the depressed fragments of bone. In the next case, however, which we shall notice, the mischief was still more extensive, although the pieces of bone were removed.

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* M. Paillard. Clinical Report from the St. Louis. Révue Med. Sept. 1826.

Case 2. * * * æt. 16, received a violent blow, Aug. 1st, 1825, on the left side of the frontal bone, near the eminentia, from a grinding stone, which broke in pieces. On his admission, directly after the accident, the bone was found fractured, and a splintered piece, the size of a five-shilling piece, driven into the brain.—The fragments of bone were removed by means of the circular forceps, and some of the cineritious substance of the brain issued with them. Copious venæsection—and the wound was dressed simply. Insensibility. In the evening, another free bleeding. Next day, the patient was perfectly sensible, and could answer questions. Much soft bloody-looking cerebral matter issued from the wound—*venæsection.* The discharge from the wound now assumed a gangrenous appearance. The patient, on the fifth day from the accident, fell into a comatose state, but survived till the 26th, when he sunk.

Dissection. The fracture had extended no further than the wound. The tunica arachnoides covering the convexity of the right hemisphere was much inflamed, and covered with a layer of pus; this was the case, also, at the base of the brain. The left anterior lobe of the brain was almost entirely destroyed; what was left was in the suppurative state.

We shall now record another case, where fracture, with depression, is stated to have taken place, without any symptoms of compression supervening.

Case 3 Boulogne, æt. 22, a carpenter, of athletic constitution, fell on his head from a high scaffold, Sept. 1st, 1825. On admission into hospital, he was insensible; there was left, over the right superciliary ridge, a depression about six lines deep, arising from the complete separation of the depressed portion of bone from the cranium. The integuments were bruised, but not broken. On being bled, the sensibility returned. *Sept.* 2. The man had a little pain in the head, and fever. V.S. ad ℥xx. At the end of a month the patient was cured. The swelling of the integuments had subsided, but the depression still remained, about the depth of six lines.

To these cases we shall add one which occurred, some little time back, in a public hospital, and under our own observation.

W. S. æt. 12, of a strumous habit, fell from a scaffold, 60 feet high, on the 1st Sept. 1826. He was stunned by the fall, but was recovering when a medical gentleman came up, and took away fourteen ounces of blood on the spot On admission into hospital, he was quite sensible, and the pupils contracted and dilated. At the upper and left part of the head there was a scalp-wound, and the parietal bone beneath was found to be fractured into several portions, which were depressed. Cerebral matter issued through the wound. This was dressed with lint. For the three next days, there was little alteration—the pupils contracted and dilated, though not so readily as they should do; the lad was sensible, and could answer questions. *Sept.* 5. Re-action, in some degree, took place—the pulse got up—he would not answer questions—the pupils became

more sluggish. V.S. ad ℥xij. with much relief to the symptoms. He soon, however, relapsed into his former dozing state—the pulse became 140 or upwards—convulsions appeared—the pupils became dilated, and delirium occurred at night. *Sept.* 8. The pupils again contracted more readily, but opisthotonos, chiefly, however, confined to the muscles of the back of the neck, was developed. *Sept.* 9. He gradually sunk. During the progress of these symptoms, pus and cerebral substance, blended together, were discharged pretty freely through the wound. The treatment consisted in frequent small bleedings, cupping between the scapulæ, and the exhibition of haustus sennæ and liquor antimonii tartarizati.

On dissection, the fracture was found to be chiefly in the left parietal bone, but extending into the right. The dura mater was lacerated to the extent of an inch or more, and beyond this laceration it adhered to the arachnoid. Below the laceration there was a cavity in the brain containing mingled pus and cerebrum in a diffluent state. Pus effused over the hemispheres of the cerebrum—pus and serum near the junction of the optic nerves.

We shall now make a few remarks on the subject of injuries of the head. Our impression decidedly is, that at this present moment, surgeons trust too much to nature, and too little to the instruments of their art. In Mr. Pott's time, almost every man who got a broken head was trepanned as a matter of course. This, no doubt, was bad practice. Mr. Abernethy published his work on injuries of the head, and the trephine was almost banished the surgeon's instrument-case. Indeed, Mr. Samuel Cooper, in treating of fractures of the cranium, with depression, again and again warns his readers —" that *existing symptoms of dangerous pressure on the brain can alone form a true reason for perforating the cranium.*" Surgeons are beginning to discover that this is bad practice also. If the bone is depressed, and there are as yet no symptoms, we are told that it is *too early* to apply the trephine, but when symptoms do come sad experience tells us, alas! that it is *too late.* Now, when we consider that these *symptoms* are, for the most part, *not* the symptoms of mere compression, but of irritation and inflammation, excited by the presence of a foreign body, we should be led to expect their occurrence, not so much immediately on the receipt of the injury, as after the lapse of a certain period of time. And such in by far the majority of instances, is the actual state of the case. We are convinced that the term *compression*, has done infinite mischief; it has led to false reasoning and consequent bad practice. Mr. S. Cooper, for instance, in his arguments against the use of the trephine, makes use of the following piece of sophistry: " indeed, it is not easy to conceive that the *pressure* which caused no ill effects at a time when the contents of the cranium filled its cavity completely, should *afterwards* prove injurious, when they have adapted themselves to its altered size and shape." *Page* 505. If it were always mere *pressure*, perhaps it would " not be easy to conceive it," but the cause of the mischief generally being *irritation*, it is not only " easy to conceive" the after occurrence of symptoms, but every one who is not wilfully blind may see the thing happening

every day. What then is to be our rule in the application of the trephine? If the fracture, *with depression*, be a compound fracture, we should certainly say that the trephine or elevator is indicated, even though no symptoms are present. It may be true that some cases of this kind will do well without operations, but these are "rare instances," and we do assert that no surgeon is justified in thus exposing his patient to the risk which he infallibly runs. The opinions of Sir A. Cooper on this subject, of whose experience it would be useless for us to say any thing, are, we think, so just, that we cannot avoid transcribing them here.

"If the fracture be compound, the treatment may be very different, because a compound fracture is followed, very generally, by inflammation of the brain; and it will be of little use to trephine when inflammation is once produced. It might be thought that it would be time enough to perform this operation when inflammation had appeared, but this is not the case; for if the inflammation comes on, the patient will generally die whether you trephine or not." —*Sir A. Cooper's Lectures, by Tyrrel*, vol. i. p. 305.

Sir A. Cooper's practice, when called to a case of this kind, is this: Whether symptoms of injured brain exist or not, he generally uses the elevator to raise the depressed bone, if possible. If the elevator will not do, the worthy Baronet applies the trephine, but this he uses "very rarely."

The case we have detailed as occurring at one of our hospitals illustrates well what we have said on this subject. A boy falls from a height of 60 feet, the scalp is torn—the bone depressed, and brain issues through the wound. The depressed bone is not elevated—the irritating body not removed. What is the consequence? Why all goes on well for a few days; then symptoms of irritation and inflammation show themselves, and the patient sinks. On dissection, the membranes are found inflamed, and the brain ulcerated. Can there be a better case than this of the danger of *not* trephining?

There is, however, another kind of facture, with depression, viz. that where the scalp is uninjured, and the fracture consequently simple, in which the use of the trephine may admit of doubt. Bearing in mind that the symptoms do no arise so much from compression as from irritation, it may, we repeat, admit of doubt, whether the conversion of the simple into a compound fracture, by the operation, and the consequent admission of atmospheric air into contact with the brain, may not prove a greater source of irritation than the mere presence of the sunken bone. Sir A. Cooper, for whose opinions we have the highest respect, observes—

"If the fracture be simple, and there is no wound in the scalp, and no symptom of injury to the brain, it would be wrong to make an incision into the part, and perform the operation of trephining; for, by making such an incision, you add greatly to the danger of the patient, as you make what was before a simple, a compound fracture, and, consequently, greatly increase the danger of inflammation, *which rarely follows fracture with depression, where the fracture is simple.*" Even if, in this case, there *be* symptoms of injury

to the brain, Sir A. Cooper would not immediately trepan, but would take away blood and purge freely, and then see how far the symptoms may arise from concussion of the brain, and not from depression.

Whether this be the best practice or no, we are not quite prepared to say. Case 3, which we have related in this paper, as far as it goes, confirms this view of the subject. The man had considerable depression of the frontal bone, but the scalp was sound. He had not a bad symptom. On the first kind of fracture, however, *compound*, with depression, we think there can be no manner of doubt as to the propriety, nay, the necessity of trephining. We cannot conclude without referring the reader to the very able paper on this subject, published by Mr. Wise, in the Extra Limites department of this Journal, for April, 1825.

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6. OPHTHALMIA.*

Mr. Mackenzie, who is one of the surgeons to the Eye Infirmary of Glasgow, has published a paper on this subject, of which we shall give a short abstract. He divides the ophthalmia occurring in adults, from atmospheric causes, into the catarrhal, rheumatic, and catarrho-rheumatic. These are German distinctions, too little attended to, Mr. M. thinks, in this country, and essentially necessary for the proper treatment of the disease. "The appropriate treatment of the rheumatic ophthalmia is not at all adapted to the catarrhal; while the remedies which, in a few days, subdue the catarrhal, will only exasperate the rheumatic."

The catarrhal genus affects the conjunctiva—the rheumatic affects the "*fibrous sclerotica* and surrounding fibrous membranes"—the catarrho-rheumatic affects both the conjunctiva and the sclerotica, the symptoms being a union of those accompanying both. We fear Mr. M. will have some difficulty in persuading the routine practitioners of this country to adopt his minute classification. Thus in conjunctivity, as a genus, there are four species—the atmospherica—contagiosa—leucorrhoica—gonorrhoica.

The inflammation in the first species (catarrhal ophthalmia) which is the most common of all forms of ophthalmia, in adults, is almost entirely confined to the conjunctiva and meibomian follicles. The secretion of the membrane is increased, and becomes opaque, thick, and puriform, though in many cases it remains translucid. The redness is chiefly in the conjunctiva lining the eye-lids, in mild cases, while the vessels on the white of the eye can be moved in every direction, by pressing the eye-lid against the eye-ball with the finger, "showing that they reside in the conjunctiva." In severe cases chemosis takes place, and general antiphlogistic treatment is insufficient—the cornea may burst, and vision be destroyed, if local means are neglected. Mr. M. attributes this accident more to mechanical pressure of the distended conjunctiva of the eye-lids and eye-ball,

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* Mr. Mackenzie. Med. and Phys. Journal, No. 4.

than to excessive inflammation in the cornea itself. In this species, the patient uniformly complains of a feeling of sand in the eye, which may therefore be regarded as diagnostic. There is usually freedom from head-ache, which is the reverse in the rheumatic species, this last being accompanied by violent circumorbital pain, aggravated in the night.

The exciting causes are atmospheric transitions, and especially exposure to the night air, to cold and wet. The nature of the causes renders the disease sometimes epidemic. If neglected or improperly treated, it may continue for many weeks, and cause much feeble excitement, as well as local distress. The conjunctiva may become rough, and by its friction over the cornea cause nebulæ or even opacity. The discharge becomes puriform, and in that state will communicate conjunctivitis to others by actual contact, and in a still more severe and dangerous form than the original disease. Mr. M. thinks it probable that the Egyptian ophthalmia among our soldiers was at first "atmospheric puro-mucous conjunctivitis, but that it afterwards degenerated into a contagious, perhaps infectious disease."

Several examples of this change of character in the discharge are given. Indeed, direct experiments by Guillié, proving the contagious property of the matter.

The catarrhal ophthalmia yields readily, in general, to very simple treatment—"chiefly of a local and stimulating kind." Violent general remedies, Mr. M. thinks are absurd, and worse than useless. We shall give the indications of treatment in Mr. M's own words, as we cannot abridge them without injury to the author's sentiments.

"1. I very rarely find it necessary to take away blood in catarrhal ophthalmia, either from a vein or by leeches. When there is more than usual constitutional irritation, the taking away of from twelve to twenty ounces of blood from the arm, will no doubt prove useful; but this will rarely be necessary, if the disease has not been neglected for a number of days, or mistreated.

"2. Scarification of the conjunctiva of the eye-lids is necessary only in cases in which there is some degree of chemosis, and a distinctly puriform discharge. In such cases it proves a valuable means of cure. One or two deep incisions being made along the inner surface of the upper or lower eye-lid, a very considerable discharge of blood will immediately take place; and if the eye-lid be properly managed, blood will continue to flow for a considerable time. For this purpose, the eye-lid ought never to be held everted till the bleeding ceases, nor allowed to fall back into continued contact with the eye-ball, in either of which cases it will soon cease; but the eye-lid ought to be alternately everted and permitted to return to its natural position, by which means the divided vessels are refilled, and thus a continual flow of blood is produced.

"3. A brisk dose of calomel and jalap may be ordered, with occasional doses of neutral salts.

"4. Determining to the skin is also useful; which may be done by the warm pediluvium at bed time, and by small doses of Spir.

itus Mindereri, or of any other mild diaphoretic, in combination with diluent drinks.

" 5. In severe cases, a blister to the back of the neck will be found useful, or blisters behind the ears.

" 6. Even weak solutions of acetate of lead, or of sulphate of zinc, are prejudicial in this disease, aggravating the sensation as if sand were in the eye, increasing the redness, and leading to opacities and ulcers of the cornea.

" 7. On the contrary, the feeling of sand is uniformly relieved, and the inflammation abated, by the use of the solution of nitrate of silver. The solution which I employ contains from two to four grains of the nitrate in one ounce of distilled water. A large drop is to be applied to the eye once a-day, by means of a camel-hair pencil. The instant that it touches the eye, the salt is decomposed, and the silver precipitated over the conjunctiva in the state of muriate. I have sometimes alarmed other practitioners, by proposing to drop upon the surface of an eye highly vascular, affected with a feeling as if broken pieces of glass were rolling under the eye-lids, and evidently secreting purulent matter, a solution of lunar caustic; and I have been not a little amused and pleased at their surprise, when next day they have found all the symptoms much abated by the use of this application.

" 8. As a collyrium, I am in the habit of using a solution of one grain of corrosive sublimate in eight ounces of water. This being made milk warm, is used thrice a-day for fomenting the eye-lids, by means of a linen rag. In mild cases, a few drops are thus allowed to flow in upon the eye; but, in severe cases, in which the discharge is copious and puriform, this collyrium must be injected over the whole surface of the conjunctiva, and especially into the upper fold of that membrane, by means of a syringe; so that the whole morbid secretion is removed, and the diseased membrane immediately touched by the solution.

" 9. At bed-time, about the size of a large pin-head of red precipitate ointment, melted on the end of the finger, is to be smeared along the edges of the eye-lids. This ointment is prepared by levigating twelve grains of red precipitate till they become an orange-coloured impalpable powder, to which one ounce of fresh butter is to be added. I have occasionally seen this ointment prepared so carelessly, that crystalline scales of red precipitate were evident in it to the naked eye. The red precipitate ought to be carefully levigated till it lose the red colour, and become orange. Added to the quantity of unctuous substance above mentioned, it forms a golden coloured ointment, which keeps for a great length of time, and is by far the best of all eye-salves.

" 10. The inside of the upper eye-lid ought daily to be inspected. If there is any tendency to a rough and sarcomatous state of the conjunctiva, it ought to be touched with the solid sulphate of copper." 326.

On this plan, our author has treated a number of cases of catarrhal ophthalmia, and with uniform success. In no case, if treated

before ulceration took place, did ulcer or opacity succeed. On the other hand, he has seen many cases which had been much aggravated, by trusting to general treatment—especially to bleeding—or by the use of acetate of lead, or sulphate of zinc, as local applications. He has been led to attribute to these salts the detachment of the conjunctival layer of the cornea—whereas, such superficial ulcerations, treated with the solution of nitrate of silver, have uniformly healed without opacity.

An analogous mode of treatment is to be followed in the different species of puro-mucous conjunctivitis. But these are more severe and more dangerous diseases than the catarrhal. Mr. M. defers any farther remarks on these till a future opportunity. In the mean time he has introduced a number of highly interesting cases, in illustration of the principles of treatment which are laid down in this paper. For these we must refer the reader to the Journal of our contemporary already indicated.

7. MEMOIR ON MORBID INVAGINATIONS OF THE INTESTINES.*

[Dr. Dance—Hotel Dieu.]

Two cases which presented themselves at the Hotel Dieu, under M. Husson, suggested to his then pupil (Dr. Dance) the idea of this paper. He had some notion of writing an essay on the subject enriched with researches among former writers; but has wisely come to the determination of doing little more than recording the facts, and there leaving them, as materials for future historians of a terrible disease, which is variable as to degree, obscure as to symptoms, and capable of destroying life without the practitioner being assured of the existence of the malady. Many cases of this affection are on record; but few of them, Dr. Dance observes, are sufficiently minute in their anatomical details. We now proceed to the facts, which form the basis of this memoir.

Case 1. C. Claude, aged 35 years, a joiner, was admitted into the Hotel Dieu on the 19th April, 1825, presenting the character of long sufferings, and giving the following history of his complaint. Formerly a soldier, he had resided ten years in the neighbourhood of Rochefort, and had there been attacked several times with intermittents, for which he had taken bitters, emetics, and purgatives. For two years past he felt frequent dispositions to vomit, and then threw up bilious matters, especially after any errors in diet. During the last three months, this poor man was a martyr to vomitings, which occurred from hour to hour, and were sometimes accompanied by diarrhœa, in which blood appeared. His digestion was very difficult, and he had fallen into a kind of marasmus. His face was sallow and shrunk, with a yellow tint—skin dry and rough—tongue white in the middle, moist, and a little coloured at the sides—vomitings, especially after taking drink, abdomen retracted, hard and tense, pulse small and frequent, wandering pains in the belly. *Low diet—emulsions, &c.*

* Memoire sur les Invaginations Morbides des Intestins. Par M. Dance, M.D. Aide de Clinique à l'Hôtel Dieu. REPERTOIRE, No. 2.

20*th*. The diagnosis of "profound gastro-intestinal inflammation" was established. On the 21st and 22d, the vomitings were frequent, and the patient had constant desire to go to stool, without the power of evacuating any thing. This state continued. 23d. On examining his abdomen this day, there was observed, in the left iliac fossa, a kind of oblong tumour, the nature of which could not be ascertained. The patient had made more than twenty attempts in the course of the night to evacuate, but without success, having only passed some mucus and blood. He sunk this day, with all the symptoms of peritoneal inflammation.

Dissection. Great emaciation, and icteritious tinge of the skin. The head was not examined—the thoracic organs were sound. On opening the abdomen, the marks of peritonitis were every where conspicuous. The small intestines were distended with air. On wishing to begin the examination of the mucous membrane at the valve of the colon, they were surprised not to be able to find either cæcum or ascending portion of colon! After searching about, they came to a tumour which occupied the descending colon, and which proved to be an immense intus-susception ,which was demonstrated to the pupils by Baron Dupuytren. The cæcum, ascending portion, and half of the transverse arch of the colon, appeared to be wanting, and the large intestine seemed to take its origin towards the termination of the transverse arch of the colon, presenting, for the space of 18 or 20 inches, an enlargement equal in size to that of a large adult arm, round, hard, and terminating abruptly in the iliac fossa, where the colon resumed its natural form.

This tumour was formed by an invagination of the lower portion of the small intestine and a portion of the colon into itself. There were, therefore, three intestinal parieties to get through in proceeding from without to within—the first formed by the descending colon, which was the recipient of the whole—the second by the ascending and transverse arches of the colon, incarcerated in the first, so that the cæcum was actually seated in the sigmoid flexure of the colon!—the third layer or coat of the tumour was the small intestine, which had descended as far as the new situation of the cæcum.

In the outer coat (colon) there were two large gangrenous perforations, one the size of the palm of the hand; the other rather smaller, and both penetrating through the three coats. The invaginated portions of intestine were glued together by adhesive inflammation, with false membranes, &c. between them. That portion of ileum which was nearest to the invagination was distended by fæcal matters and yellow fluids, and presented several erosions on its inner surface. On the other hand, that portion of colon which was below the intus-susception was shrivelled up, and contained only some mucus. The liver was much smaller and denser than natural, the other viscera healthy.

A question arises here, whether this remarkable invagination was of recent or ancient date. There can be no doubt but that it was of long standing, and that it had gradually gone to the extent above described.

A very curious case of what was supposed to be invagination occurred, within these few years, in the person of a fine little boy, of ten or eleven years of age, residing in the New Road, and under the care of Mr. Bagster, an intelligent surgeon, of Guildford-street. The boy had been afflicted for some years with excruciating pain in the region of the transverse arch and decending colon, where, at length, a very tender and painful tumour was felt, and continued for more, we believe, than two years. All this time the boy was in the habit of passing, under excruciating torments, every two or three hours, some liquid excrement, mixed with mucus, blood, and serous fluids of different colours, but, seldom, we believe, natural fæces. At length matters got to such a height that the boy was expected to die, and Sir Astley Cooper frequently saw the patient. On examination by the rectum, Sir Astley distinctly felt, we were informed, the invaginated portion of bowel, which had come down within reach of the finger. It was shortly after this period that we had opportunities of often seeing the boy. There was a hard tumour, exceedingly tense, tender, and painful, in the left side of the abdomen, apparently occupying the track of the descending arch and sigmoid flexure of the colon. The urgent desires to stool still continued, and the matters rendered were of a liquid and unnatural appearance, devoid of real fæcal smell. The boy was tolerably easy till the nisus for stool came on, when he roared out with pain, and, at these times, his mother pressed hard against the anus, which seemed to afford the boy relief. He was obliged to take opiates in considerable quantities, which, with aperients, were the only medicines that seemed to be of use. Externally, leeches were applied, from time to time, to keep down the inflammation. The most curious part of the history remains to be told. After so many years of suffering—after the existence of a tumour in an irritable or inflamed state for such a length of time—after an intus-susception had been ascertained by the finger of the first surgeon in England—after the boy's life had been long despaired of by friends and medical attendants; he took a sudden turn for the better—the pains became less and less distressing—the tumour rapidly diminished, with a great discharge of fluid—the stools became more natural—and the boy, at this day, has not a vestige of disease left! It is worthy of remark, that, when the complaint began to get better, he felt something dragging up or retracting from the tumour, which is now supposed to have been the invaginated portion returning back again. We candidly confess that we did not consider this case as one of intus-susception when we first saw the boy. We looked upon the tumour as some morbid growth, probably an hydatid, which had burst into the colon. The termination of the case, however has staggered us a little, and made us distrustful of our diagnosis. If it was an invagination, it offers a remarkable instance of cure by the effort of nature, after so many years' duration of a formidable disease.

Case 2. J. Pradier, aged 22 years, was received into the Hotel Dieu on the 8th August, 1825. He dated his complaint at several months previously—the symptoms being occasional colicky pains, inclination to vomit, and actual vomitings followed by constipation.

These accidents, however, did not prevent him from following his usual occupations; till the end of May, 1825, when the sickness at stomach acquired a degree of intensity that compelled him to enter an hospital in the country, where leechings gave relief. He came to Paris in July, where he was soon so ill that he applied for reception at the Hôtel Dieu. He was now much emaciated, with pallor of face, expression of suffering in his countenance—colick and constipation—vomitings of greenish and inodorous fluids—severe pain in the line of the transverse arch of the colon, as also in the descending portion, extending to the anus, with a nisus for evacuation—tenderness of the abdomen on pressure—contraction and rigidity of the abdominal muscles—ardent thirst, but quick rejection of the fluids taken in—pulse small and hard—skin dry, but not hot. "All these symptoms appeared to be the result, solely, of a very acute peritonitis." We do not know how Dr. Dance and his master could reconcile this idea with the distinct pain following the line of the colon down to the anus. Such a phenomenon has no connexion with general peritonitis. Leeches were applied to the abdomen, and renewed the next day; to which were added half-baths and emollient cataplasms. 12th. The vomitings are more obstinate than ever—the pains in the abdomen more severe—and a tumefaction was remarked in the course of the sigmoid flexure of the colon. Some of the medical officers attributed this symptom to a collection of hardened fæces in the intestine; but the recent occurrence of the former case decided Messrs. Husson and Horteloup to consider the disease as intestinal invagination. (Thirty leeches to the abdomen, diluents.) 13th. No relief—vomiting, constipation, and tenesmus continue. A lavement of castor oil brought away some black and hardened fæces. 14th. Violent tenesmus—some bloody discharge. 15th. After a dreadful night of pain, the belly appears tumefied this morning—the countenance is unusually anxious—the eyes sunk—pulse small and frequent—abdomen painful on the slightest pressure. Sixty leeches. 18th. The skin this day became yellow—and death took place on the morning of the 19th.

Dissection. All the thoracic organs were sound. Head not examined. The peritoneum was universally inflamed, and formed numerous adhesions, by means of the false membranes thrown out among the convolutions of the intestines. On raising the small intestines, the cæcum and ascending colon were not to be seen; and in the left iliac fossa was found a large oblong tumour, ten inches in length, and as thick as a man's arm, its inferior extremity terminating in a conoid form, and of a dark brown colour. This extremity was formed by the mucous membrane of the cæcum inverted and invaginated in the sigmoid flexure of the colon, through the parietes of which it had burst, and projected into the pelvis. On examination, it was found that two inches of the ileum had descended into the cæcum, and this last had become inverted and pushed forward into the ascending colon, which, in its turn, had advanced into the transverse arch, and all these parts, thus invaginated, had gone down to the left iliac fossa. The surfaces were agglutinated together as in the former case. Three gangrenous perforations were discovered—

one in the sigmoid flexure of the colon, already noticed—the two others were in the parietes of the ascending and transverse arches of this intestine. All the coats of the intestines were thickened and discoloured. The small intestines, above the invagination, contained yellowish liquid matters, which became harder and drier as they ascended up towards the jejunum. There was no effusion in the cavity of the abdomen, nor any other disease than the above-mentioned.

We may now refer to some other cases of invagination recorded by authors. Baillie, in his Morbid Anatomy, speaks only in general terms of this accident, and observes that it is most liable to happen at the termination of the small in the large intestines. He does not state any case in that work.

The younger Monro, in his Pathology of the Intestinal Canal, relates the case of a child, four months old, to which he was called. The nurse informed him that the infant had had a copious evacuation that day, attended with great straining, since which he appeared to be in great pain. The pain, however, became mitigated, though the inclination to stool continued, with only the discharge of mucus and blood. Lavements would not go properly up, and purgatives did not pass downwards. Dr. M. suspected an intus-susception, and dissection proved the truth of his diagnosis. After 68 hours of misery the child died. On examination, it was found that the lower extremity of the ileum and the cæcum had been pushed up through the colon ascendant—afterwards through the transverse arch, and ultimately down to the rectum; that is to say—one half of the colon, including the cæcum and a portion of ileum, was reversed into the other half of the same bowel.

In the second volume of the Transactions of a Society for improving Medical and Chirurgical Knowledge, Dr. Baillie relates a case, which, however, he had no opportunity of seeing before death—the Doctor, at that period, (1795) being much more conversant with dead than living bodies. The morbid part was sent to Dr. B. by Sir W. Farquhar. The patient, it appeared, had been attacked with vomiting and violent pain in her stomach, attended with great constipation of the bowels. When motions were procured by strong medicines, they were mixed with blood and mucus. About three weeks before her death she voided a substance resembling gut, about a yard in length. For some days before and after this, she could not have an evacuation from the bowels "unless held up nearly in an erect posture." She could keep nothing on her stomach. Fourteen days before death the pain diminished, except in the left iliac region, where it still continued. Her body and legs swelled—any thing taken into the stomach immediately excited a disposition to stool, as well as vomiting. She died in convulsions after much suffering.

On close examination of the substance expelled, Dr. B. found it to be a portion of the colon. The statement is not very perspicuous, but the drawing, which accompanies the paper, clearly proves the nature of the substance. No examination of the body would be permitted. There can be no doubt of the nature of the substance

voided—and little of the modus in which it was separated. It is only an *invaginated* portion of intestine that could come away in this manner, without sudden death. The case related by Cheselden, of a poor woman who lived many years after the loss of 26 inches of gut that had become mortified in a hernia, is no objection to this conclusion, because the canal was preserved by the contiguity of the upper and lower extremities of the gut. A still stronger confirmation of our conclusion was afforded by a case published nearly a century ago in the Physical and Literary Essays, by Mr. Muir, of Glasgow. The patient was a boy, 12 years of age, who had been subject, for a year, to colick pains, diarrhœa, &c. and afterwards passed a substance which was proved by the elder Monro to be 13 inches of intestine. The boy died and was opened, when it was found that the portion discharged had been an invagination of the colon.

About 20 years ago, M. Roux read a paper in one of the medical societies of Paris, on a case of invagination of the colon, some account of which was published at the time in the 11th volume of the Medical and Physical Journal.

Case. A man, 48 years of age, was seized in the spring, with diarrhœa, after some excesses, attended with colicky pains. The complaint increased in severity, so that he was obliged to go from 20 to 30 times a-day to stool. During one of these efforts, a tumour appeared externally, the size of an egg, accompanied by violent pain. Attempts were made to reduce the tumour, but in vain. It increased in size. On the 3d day M. Roux and an other surgeon were called, and found symptoms of abdominal inflammation, with extreme pain extending from the epigastric region down to the tumour, which had now a frightful appearance. It was about ten inches in length, and six or seven broad, of a chesnut colour, hard, and painful. On the 4th day there was hiccup. On the 5th day, the hiccup and pyrexia had increased, and vomiting was added to the other symptoms. On the 6th day, the vomiting was stercoraceous—the pulse small and weak—the tumour flaccid, with some diminution of volume. On the 7th day, all the symptoms were worse, though the tumour was more shrunk. The surgeons gave up the case for lost—and an old woman took charge of the patient. She managed to push up the tumour within the rectum. The man died next day. With great difficulty the surgeons got permission to open the body, when the following appearances presented themselves.

Dissection. On opening the abdomen much gas escaped, and there was a quart of dark-coloured fluid in the cavity. The intestines were coated with false membranes, and agglutinated every where to the parietes. The rectum, when opened, disclosed thirteen inches of colon invaginated. This formed the tumour which had come down per anum.

Dr. Shaw, of America, published, a good many years ago, a case of intus-susceptio, where the patient died after a few days illness, having first diarrhœa, then vomiting, with severe pain in the bowels,

and a sense of their moving from side to side. On dissection, it was found that more than half the ileum had passed up into the jejunum, and was there invaginated. The whole of the small intestines were in a state of high inflammation.

Mr. Langstaff published, about 20 years ago, a curious case of intestinal invagination, of which we shall give an abridged account in this place. The patient was a fine healthy child (three months old) who was suddenly seized, on the 10th of January, 1807, with griping pains in the bowels, violent vomiting, and frequent propensity to stool. Aperient medicines and a fomentation had been ordered by the apothecary. Next day, all the symptoms were aggravated, and nothing but blood and mucus came away. The sufferings of the child were excessive. A hard tumour could be felt in the left side of the abdomen, and the intestine protruded to some distance from the rectum, in consequence, as was supposed, of the straining. All the symptoms continued till the 15th January, when the child died.

Dissection. The cæcum, ascending, transverse, and descending portions of the colon appeared to be wanting. The ileum terminated in the sigmoid flexure of the colon, which felt externally like a solid body. The small intestines were distended with fluid excrementitious matters, and were highly inflamed. On opening the sigmoid flexure, the portions of intestine which appeared to be wanting, were here found, in an invaginated state. The invaginated intestine was highly inflamed, and its coats had given way in one part.

We need hardly remark that this case was almost precisely similar to those related by Dr. Dance.

Among the extraordinary efforts of Nature, in such a terrible disease, we may mention a case recorded in the 9th volume of Duncan's Medical Commentaries, by Dr. Dougall of Leith. A woman, 67 years of age, was seized with violent colic, "or ileus," and all the usual remedies were diligently employed for several days without success. About the 10th day of the illness, a looseness came on, and continued four or five days with relief of the threatening symptoms. On the 17th day, she voided, *per anum*, a piece of the ileum, with its corresponding portion of mesentery, 18 inches in length. After this evacuation, she became almost free from pain, but was extremely weak. The woman lived till the 36th day—that is, 19 days after the discharge of the invaginated portion of intestine.

Dissection. The greater portion of the intestines was pressed down into the pelvis. On ripping open the small intestines with scissors, a part was found in a constricted state, where there had been an intus-susception of the part thrown off. "There seemed evidently to have been a division of the gut, and an union of the two divided ends by inflammatory adhesion." The stricture at the union was capable of admitting only the little finger with difficulty. It would appear that this poor woman died rather of inanition than of the effect of the separation and discharge of intestine.

We shall now glance at a case, where Dame Nature was more suc-

cessful in her efforts. It is related by the venerable Dr. Sanden of Chichester, in the 6th volume of Duncan's Annals. The patient was a young man, previously healthy, who was suddenly seized with violent pain in the bowels and sickness at stomach, on the 12th of May, 1800. The symptoms did not rapidly advance, as it was not till the 16th, that Dr. S. was desired to see the patient. He was then labouring under extreme pain, principally seated between the umbilicus and pubes, but extending down towards the right iliac region. The belly was tense—very tender to the touch—and increased in temperature. There had been stercoraceous vomiting—no passage downwards—pulse quick and hard—tongue dry—great prostration of strength—much restlessness. These symptoms continued nearly the same till the 18th, when the pain became much mitigated, and there was singultus. There was occasional vomiting of fæcal matters. The constipation still continued, though the abdominal tension had subsided. In the night between the 22d and 23d of the above month, a very copious and effectual evacuation by stool took place—and the next day, the patient complained for the first time, of great acidity in the matters ejected from the stomach. From this period all the symptoms appeared to recede, and the patient was soon convalescent. On the 27th, he passed by stool, a substance which, on careful examination, proved to be a portion of small intestine, measuring full twelve inches. Of this, the separation had taken place very obliquely at one end, and somewhat obliquely at the other; so that, in the part separated, the intestinal tube was complete for the space of only about five inches. To this a portion of mesentery was attached. The discharged portion was every where firm in texture, and only differed from its natural state in being of a darker colour.

In the first volume of the Transactions of a Society, &c. we have a paper on the subject of intus-susception from no less a personage than John Hunter. Mr. H. makes many just observations on the probable mode in which an intus-susception takes place. He then alludes to a case published by Mr. Whately in the 76th volume of the Philosophical Transactions, where the invagination began at the insertion of the ileum into the colon, carrying in with it the cæcum and its appendix. The ileum passed on into the colon, till the whole of the ascending colon, the tranverse arch, and descending colon were carried into the sigmoid flexure and rectum. The valve of the colon being the leading part, it at last got as low as the anus; and when the person went to stool he only emptied the ileum, for one half of the large intestine being filled by the other, the ileum alone, which passed through the centre, discharged its contents. This appears to have been the case with the little patient of Mr. Bagster's attended by Sir Astley Cooper, and seen frequently by ourselves.

The case related by Mr. Hunter, was that of a child, nine months old, attended by Dr. Ash, who was seized with a strong spasm, not having any previous ailment, and during which, he passed a very large loose stool, followed by small mucous and bloody dejections. Dr. A. saw the child a few hours afterwards, and though apparently

well, and taking the breast, he found the pulse very slow, which induced him to think mortification had taken place in the bowels. Purgatives, fomentations, the warm bath, and various glysters were employed, but without any good effect. Dr. A. felt, or thought he felt, a deep-seated fulness or hardness under the left hypochondrium; Blisters were applied. No evacuation by stool could be obtained, and the child sunk, 60 hours after the spasm.

Dissection. The small intestines were found much distended with fluid contents. The mesentery was so much confined, that the convolutions of the small intestines could not be readily followed. This confinement was discovered to arise from an intus-susception of the ileum and its mesentery, together with the cæcum, and ascending colon into the descending part of the sigmoid flexure of the colon; the mesentery of the ileum being drawn up so obliquely across the root of the mesentery, as to prevent the jejunum from having its usual freedom of attachment. The only part of the colon which could be seen, was the sigmoid flexure, in which was distinctly to be felt a hard substance consisting of the ileum and inverted colon. The sigmoid flexure being opened was discovered to contain the cæcum and colon in an inverted state. The inverted colon had drawn in the mesocolon and a portion of the omentum that was attached to the transverse arch. There was some inflammation and thickening of the contained colon. The sigmoid flexure, or containing part, had the natural appearance, except that it was dilated, and the other parts of the abdomen were in a natural state. The dissection appears to have been made by Mr. now Sir Everard Home.*

We have thus laid before our readers a mass of authenticated facts relative to this serious accident which Dr. Dance has overlooked or did not think proper to adduce. These cases are quite sufficient to convey not only a clear idea of the nature of the disease, but of the places where it most frequently occurs when of a dangerous or fatal nature. There can be little doubt that invaginations of the small intestines frequently occur, but only occasion a temporary inconvenience. We often see them in the intestines of children after death, and where they can be drawn out easily, exhibiting no sign of inflammation or adhesion. Helvin, in his celebrated memoir on gastrotomy for the relief of intus-susception, states on the authority of Louis, that among 300 children who died at the Salpetriere, during dentition or worm-fever, the greater number

* Our readers will find, in the second volume of this Series, p. 460, a remarkable case recorded by Mr. Davies, where a child lived eight months with an intus-susception, and where the caput coli came down to the anus. The bowels were regularly open every day, the stools being thin and watery. In fact, there was no remora in the large intestines for the formation of natural stools, and a case of this kind is similar to one where an artificial anus is formed in any part of the abdominal parietes by a wound of the ileum. The fæces never touch the internal surface of the colon.

exhibited two, three, or four invaginations, without inflammation, and without the children having shown any symptoms of such an accident before death.

But when invagination takes place at the valve of the colon—where the small intestine is dragged in, and the large inverted on itself, the case is otherwise, and the danger is imminent.

Several interesting questions present themselves to the mind, when reflecting on these accidents. The chief are—can we recognize them during life—and if recognizable, have we any, and what remedy for the accident?

In respect to the first question, John Hunter seems to answer in the negative. "An intus-susception, says he, can never be *perfectly* known till after death; but where there are violent affections of the bowels, attended with constipation, we have reason, from the cases which have been examined in the dead body, to suppose that this disease may be the cause of them. There are, however, so many other diseases which produce the same symptoms, that nothing can be ascertained."* It is evident that Mr. Hunter has been rather too positive:—For surely the disease is recognizable when the invaginated portion is seen or felt at the anus, of which we have given examples. Again:—If, after the usual symptoms of invagination, a portion of intestine is thrown off, we have reason to conclude that an intus-susception had existed, even although the patient survives, and consequently where no dissection can be made. Of this, we have also adduced examples.

Dr. Hull, of Manchester, who has published some criticisms on the case stated by Dr. Baillie, (above detailed,) is also of John Hunter's opinion, that there is no symptom or concourse of symptoms which will enable us to determine the presence, much less the seat of intestinal invagination, unless the part intus-susceptcd come down into the rectum.†

Mr. Langstaff has ventured to criticise John Hunter's dogma (for which, by the bye, he was roughly treated by John Hunter's toad-eater, the late Dr. Adams) respecting the impossibility of our distinguishing the disease in the living body. "In many of the cases published, says Mr. Langstaff, and in that which is related in the present paper, *the seat of the disease was clearly denoted by a hard tumour in the left side of the abdomen.* This circumstance, together with the impossibility of throwing up more than a very small quantity of fluid by the way of glyster, and the presence of the other symptoms, *would lead us to suspect the nature of the disorder.*"‡

But it is to be remembered that, in many cases of invagination, the progress of the disease is slow, and consequently the symptoms must vary with the *degree* of the intus-susception. In the histories of cases, where dissection has ultimately *proved* the nature of the malady, we find that the early symptoms were, interruption, or at least embarrassment in the passage of air and fæces along the intes-

* Transactions of a Society, &c. vol i. p. 112.
† Med. and Phys. Journal, Vol. 7, p. 36.
‡ Edinb. Med. & Surg. Journal, Vol. 3, p. 265.

tinal track; hence resulted nausea, hiccup, vomiting, constipation, frequent inclination to stool, colicky pains, exasperated by the least excess in regimen, imperfect digestion, flatulence, loss of flesh, &c. At this period of the disease, it is impossible even to suspect an intus-susception, because all the above symptoms are common to disordered states of the alimentary canal from various other causes, as chronic entiritis, stricture of the colon, or rectum, &c. Even where the disease makes its debut with violence and abruptness, as in Dr. Sanden's case, for example, we can only conclude that the disease is an *obstruction* in some part of the canal, without being able to say what the nature of the obstruction is.

Dr. Dance, in the memoir under review, conceives that there is but one diagnostic sign on which reliance can be placed in these morbid invaginations—and that, when the intusception is in the large intestine. In the cases which he has related, and in those where dissection disclosed the real nature of the accident, there was not only a tumour of greater or lesser dimensions in the left iliac region, but also a flattening in of the abdomen in the place usually occupied by the cæcum and ascending colon. These phenomena in conjunction with the symptoms already described, can leave but little doubt he thinks, of an intestinal invagination, seated in the colon. The hand accustomed to examine the abdomen, he remarks, will always be able to detect such a displacement of the contents, as exists in these cases. Collections of fæcal matters in the sigmoid flexure of the colon will be the most likely accidents to imitate these invaginations; but the history of the case and the symptoms will not, in all probability, be parallel in the two instances.

There are examples of invaginations of the ileum passing down into the cæcum, and there remaining without this latter intestine being moved out of its place. Here the symptoms will be very different from the cases mentioned above. The tumour in this case will be in the right iliac region instead of the left. The impossibility of throwing up injections, as noticed by Monro and Langstaff, will aid in the diagnosis, where the invagination has advanced far in the colon.

The second question is one of great importance. Have we any remedy for these invaginations? Mr. Hunter observes that bleeding, to lessen the inflammation caused by the intus-susception, and to prevent the adhesive process by which the coats are glued together, as also "*quicksilver to remove the cause*," are the most obvious, and the means that are usually recommended. He remarks that, if the intus-susception be from below upwards, the quicksilver may get between the invaginated coats into the angle of reflection, and by pushing it farther on, increase the disease. If the intus-susception be from above downwards, as is generally the case—indeed, always when the disease is situated in the colon, the quicksilver can do no good, as it must either make its way through the central aperture of the invagination—or, if stopped there, it can only increase the malady. Mr. Hunter, therefore, suggests that every thing which can increase the action of the intestine downwards is to be particularly avoided, as tending to increase the peristaltic motion of the outer containing gut, and thus to continue the disease. Medicine

can never come in contact with the outer fold, and having passed the inner, can only act on the outer below, therefore cannot immediately affect that portion of the outer which contains the intus-susception.

"But we must suppose (says Mr. H.) that whatever affects, or comes in contact with the larger portion of the canal, so as to throw it into action, will also affect by sympathy any part that may escape such application. I should, therefore, advise giving vomits, with a view to invert the peristaltic motion of the containing gut, which will have a tendency to bring the intestines into their natural situation."

On this proposal Mr. Langstaff has made a most severe remark. "It must be a matter of regret that a name so universally and justly respected as that of HUNTER, should be affixed to a proposal so manifestly absurd." We are not among the idolators of John Hunter—but certainly John was no fool—and we are weak enough to discover nothing absurd in the proposal. Mr. L. says that vomiting is an early symptom of the disease, and consequently that to increase that symptom would be to increase the disease. Now we are of a very different opinion. We consider most of the symptoms of diseases as indications of the efforts of nature to remove them. If a person took arsenic, and vomiting followed, would Mr. L. consider an emetic as "manifestly absurd," because vomiting was an early symptom? If we could be certain that an invagination downwards had actually taken place, and that there had not been time for adhesive inflammation to glue the parts together, we know not a more likely means to retrovert the gut than the action of vomiting. The case which Mr. Hunter met with was one of those sudden invaginations, where death speedily closes the scene; and really when we come to consider that Dr. Ash found the child apparently well, *after a strong spasm*, and then commenced *purgation*, because he suspected *mortification had taken place* in the bowels, from some peculiarity in the pulse, we are inclined to think that the purgation increased, if it did not produce the invagination; and that John Hunter's proposal was by far the more rational of the two. As to the second part of Mr. Hunter's therapeutical proposal, namely, the exhibition of purgatives, if the emetic did not succeed, (on the supposition that the invagination was upwards,) we think there is much doubt to be entertained on this point.

As for gastrotomy, it is scouted by Hevin, Hunter, Calleen, Hull, Langstaff, and the author of the memoir before us, Dr. Dance. But possibly the facts which have lately come before the public, respecting the comparative impunity with which the abdomen may be laid open, will alter our ideas a little on the subject of gastrotomy in ileus. Doubtless the adhesive inflammation which usually takes place in the course of the invagination, would render the operation generally abortive; but then we are to recollect that if the invagination were in such a condition as to render the operation useless, life itself will, almost to a certainty, be forfeited, and under such circumstances, the *additional* danger of an operation is of very trifling consequence.

Some time ago* we published the case of Dr. Fuschstius, as recorded in Hufeland's Journal, where a man's abdomen was opened, after an intus-susception had continued for ten days, without any relief by stool. An invagination, two feet in length, was found, and with some difficulty extricated. The patient completely recovered. We then alluded to the case of Mrs. Belzoni's servant, where an obstruction remained obstinate for 10 or 12 days, when death took place. A piece of ileum was strangulated under an old adhesion, and was easily drawn out, without exhibiting any signs of inflammation. Gastrotomy would, in all probability, have saved this man's life. These considerations should induce us to pause before we condemn, without any qualification, the operation of gastrotomy in such dreadful cases. Anceps remedium melius est quam nullum.

One therapeutical indication, however, will be admitted by all parties. As it is evident that the adhesive inflammation of the parts will render the efforts of Nature and Art unavailing, if it goes to any extent, so the main point is to keep the circulation as low, by means of general and local bleeding, as is consistent with life. If agglutination can thus be prevented, there is still a chance of the invagination being set free by the efforts of Nature—and if these fail, an operation is much more likely to succeed, where all inflammation has been prevented by decisive depletion, than if the parts are allowed to become consolidated by effusions of coagulable lymph. We attribute the non-existence of intestinal inflammation in Mrs. Belzoni's servant, entirely to the daily bleeding, local and general, which were put in force. The physicians certainly did *their part* of the work in this melancholy case, and had Sir Anthony Carlisle screwed his courage to the sticking point, and performed gastrotomy, we should have been most happy to—

"Stick some sprigs of laurel round his wig."

Finally, let the surgeon bear in mind that the intus-susception, if it was such, in Mr. Bagster's little patient, disappeared after having existed *some years*—a consideration that may induce us not to conclude that adhesions must necessarily be insuperable, if the parts have been long invaginated.

Bleeding then, both local and general, should be carried, in all such cases, to the very utmost limit that is compatible with life—and nothing should be taken into the stomach that is capable of leaving any fæcal remains.

The forcible injection of water or air by the rectum, has been recommended Mr Langstaff objects to it, on the supposition that adhesion of the parts will prevent its success. But we are not to presume that adhesion has taken place, especially at an early period of the disease Adhesion is the product of inflammation, which may or may not arise at a more or less early period, and which it is our business to keep down Mr Langstaff's objection, therefore, does not appear to be valid We shall conclude with the following passage from Callisen, in the sentiments of which we en-

* Vol III of this Series, October, 1825, page 387.

tirely coincide. "Ilei *ab intus-susceptione* orti cura, si quæ datur, certé est difficillima, neque ulla alia methodus indicata videtur, quam quæ *inflammationi* et spasmo convenit."—*Syst. Chirug. Part. poster.* p. 287.

P. S. We believe the late Talma died of this disease, and that Dupuytren would have attempted the operation of gastrotomy, had it not been for the debilitated state of the patient.

8. CHOREA. DR. M'ANDREW.*

It is now beginning to be acknowledged that Dr. Hamilton's plan of purgation will not always prove successful in chorea. That the disease depends upon irritation in the primæ viæ, in most instances, we have little doubt: but the causes of this irritation would not produce the disease, if there did not exist a morbid sensibility, or susceptibility, in the nerves of the alimentary canal. By purgation, therefore, we only perform half our work. We clear away all irritating matters; but we do not remove the morbid sensibility of the parts to which the irritants had been applied. On this account, the best practice is to follow up the purgative plan by tonics—or, at least, to combine or alternate them.

The case of Dr. M'Andrew, was a girl, nine years of age, admitted to the South London Dispensary in March, 1826, her complaint having begun in January, in the form of slight convulsive movements in both sides of the body. These were always increased by mental agitation. She had occasional head-ache and diarrhœa. Her brother is subject to epilepsy. She herself had now the usual symptoms of Chorea, but not in a high degree. Purgation by calomel and jalap was assiduously employed, and leeches were applied to the head; but a month's treatment on this plan produced merely an increase of the convulsive movements. Æther, valerian, and opium were now conjoined with the purgatives, but under this treatment also the patient got worse. She could now scarcely stand or walk. The head was ordered to be shaved, and the tartar-emetic ointment applied, which brought out a copious crop of pustules. The convulsive movements on one side now subsided. The pustulation was extended to the spine, and with beneficial effects. The bowels were kept open by calomel and jalap. She ultimately, though very slowly, recovered.

It is evident that the purging plan failed here entirely, and the cure is to be attributed to the counter-irritation on the head and along the spine. This removed the morbid sensibility of the nerves, on which the disease generally depends. We repeat it, that purgation is only half the cure. Tonics, sedatives, and counter-irritants must be alternated or combined with purgatives.

9. M. LISFRANC'S CLINICAL REPORT. LA PITIE.†

1. *Carcinoma of the Eye.* We notice this more for the purpose of recording M. Lisfranc's mode of extirpating the organ of vision, than for any great interest that attaches to the case itself.

* Med. and Phys. Journal, No. 4, New Series.
† Hôpital de la Pitié. Révue Medicale, August 1826.

Case. Ann Vigé, æt. 21, of strumous habit, had suppression of the menses at the age of seventeen, after which she was subject to ophthalmia of the left eye. In Nov. 1825, she received a blow on this organ, which caused much inflammation, and, indeed, deprived her of vision. On entering the hospital, on the 25th February, the eye was found to be irregular—the sclerotic of a deep livid hue—pus collected behind the transparent cornea, from which there arose a fungous projection—violent lancinating pains. Extirpation of the eye was determined on, and performed by M. Lisfranc, in the following manner.

The patient being seated, with her head reclining on the breast of an assistant, M. Lisfranc, placing the finger and thumb of the left hand on the external angle of the lids, drew out the integuments; then with the right hand introducing a straight bistoury horizontally beneath this angle, he passed it half an inch across, turned it forwards, brought the point out through the skin, and so made the instrument cut its way out. Then, with a hook, drawing out the the globe of the eye, he plunged the bistoury between this and the walls of the orbit, on the inner and upper side, so as to divide the great oblique, and carried the instrument round to the point from which he started. It may be observed that the assistant opens the lids alternately, and not both at once, as is commonly done. The optic nerve and cellular tissue were divided by curved scissors, and the lacrymal gland cut out by the same instrument. M. Lisfranc, during the operation, avoided wounding the eye-lids, by making the fore-finger of the left hand a director for the bistoury. Little blood was lost.

On the 5th day there was much pain in the head, with tumefaction of the palpebræ. These symptoms were dissipated by abstinence, a free bleeding, the application of 30 leeches to the temple, and a poultice to the part. The patient left the hospital on the 15th, quite cured.

2. *Hernia and Perforation of the Stomach, &c.* F. Duvenot, æt. 63, who had always been accustomed to carry heavy weights upon her stomach, had redness and pain about the navel, which, after a fall on the 20th March, 1826, became much aggravated, and ended in abscess, that burst spontaneously. On admission into hospital, April 4th, there was found, in the place of the navel, an abscess about the size of a five-franc piece, which discharged fetid matter. On introducing a probe, this was found to end in a cul-de-sac. The patient had spasms—the eyes were sunken—the extremities cold—tongue red and dry—pulse feeble and irregular. On the next day the discharge was more fetid, and smelt of fæcal matter, the probe passed to the depth of three inches. On the 12th after the exhibition of a ptisan, pressure was made on the stomach, and the fluid was seen to issue through the opening. She sunk on the 18th.

Dissection, 20 hours after Death. The pylorus was found to have contracted adhesions with the umbilical tumour, and it had a perforation half an inch in diameter; the valve was almost entirely

destroyed by ulceration. There was a very free communication between the stomach and duodenum. Ulcerations in the jejunum, ileum, and cæcum.

Herpes Zoster. In our last we took notice of the treatment of Herpes Zoster by M. Geoffroy, at La Pitié, namely cauterization by the nitrate of silver. M. Lisfranc has detailed three other cases in which this plan was tried, and with the effect of dissipating the eruption very rapidly.

3. *Wounds of the Scalp, with or without sub-aponeurotic Inflammation.* M. Lisfranc observes that, in scalp-wounds, unless the soft parts be very much injured indeed, the surgeon brings the divided edges together, and endeavours to obtain union by the first intention. Seeing, however, that in a great number of cases so treated, the union is only superficial, that purulent matter is collected at the bottom of the wound, and that depôts frequently form in the neighbouring tissue, giving rise to serious consequences, M. Lisfranc has adopted another, and, in his hands, more successful method. After cleansing the wound, &c. he brings the edges, not into close contact, but within two or three lines of each other, by adhesive straps, the interval is then lightly filled with charpie; over this there is put some common dressing, with holes for the free exit of matter, then charpie, and a bandage over all. If pain and tumefaction should occur, the dressings are removed, and merely a little charpie is introduced into the wound, which is covered by a poultice. He adduces several cases in illustration; we shall notice one or two.

Case 1. Gindon, æt. 32, robust, received a wound on the head, about two inches in extent, on the 9th January. He was bled, and the lips of the wound brought together. On the 11th he entered La Pitié. On the 12th the wound was found partly cicatrized, its edges tumid and painful; the pulse was frequent. On tearing off the cicatrix, a small quantity of matter escaped; the wound was kept open by lint and a poultice. On the 14th suppuration was established, and the wound dressed. On the second February he was discharged, cured.

Case 2. M. Monty, æt. 67, received Dec. 11th, a wound, two inches long, over the right parietal bone. On entering the hospital on the 12th, the pulse was quick and hard—intense cephalalgia. 13th, Venesection—the wound was dressed with charpie, simple dressing, and bandage. Jan. 16th. Discharged cured.

The practitioner, however, is not always fortunate enough to meet with cases thus early. Perhaps before he is called, extensive aponeurotic inflammation and suppuration have taken place, and an excitement of the system, which is, at all times, of a serious, and not unfrequently of a dangerous character. In cases of this kind, then, the cicatrix must be broken up, free vent given to the confined matter—poultices applied, and strict diet and antiphlogistic measures, if there is any determination to the stomach or any other organ, are to be employed.

Case. M. Débété, æt. 68, had a fall, in which he received a wound, two inches long, in the upper part of the scalp. On enter-

ing La Pitié, 4 days after the accident, the wound was found partly cicatrized—the edges tumid, œdematous, and of an erysipelatous redness—pressure gave great pain. Pulse quick—violent cephalalgia—extreme dejection. The cicatrix was torn up, and a poultice put on the part: bleeding, general and local, by leeches was employed, and, on the 10th September, the patient was well.

Several other cases follow, but they are of a precisely similar character, and to use the homely adage, "enough is as good as a feast." We would now make a few remarks on the practice of which we have given an account. We think, then, that, with proper precautions, union by the first intention, in many cases of scalp wounds, as in other wounds, may be obtained with perfect safety to the patient. The error, in our opinion, in a great majority of instances, lies, not in endeavouring to produce union at *first*, but in continuing to force it on when the parts are manifestly not disposed to it. In scalp wounds where the vitality of the parts is not much injured, let union be attempted; if, however, there arise pain in the part, if the edges become puffy, and an œdematous condition show itself around the wound, let not the surgeon, as is often the case, be continuing his straps and his compresses, but let the dressing be torn off, and a ready exit be given to the serum or the matter which is surely collecting. We say serum, for we have observed that a not uncommon consequence of scalp-wound, is an œdematous condition of the surrounding tissue, situated, for the most part, under the aponeurosis of the occipito frontalis muscle: this œdematous condition of the cellular membrane between the occipito-frontalis and the pericranium is commonly attended with intense cephalalgia—great febrile action, and even delirium, and, if it be not relieved, it will, in all probability, end in extensive suppuration. A free incision down to the pericranium relieves the tension and mitigates the symptoms, and in one case, which occurred under Mr. Brodie, at St. George's, an erysipelatous attack, which appeared after the incision, was remarkably mild and speedy in its termination.

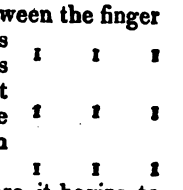
We conclude, then, that, whilst we do not entirely agree with M. Lisfranc, we think his plans, with the modifications we have mentioned, very judicious, and we repeat that the "adhesive" plan is often blindly followed up in this country.

10. DR. GREGORY ON VACCINATION.

[Small pox Hospital.]

In the November Medical and Physical Journal, Dr. Gregory has made some remarks on the best mode of introducing the vaccine virus, in order to insure its effects. He thinks the most general cause of failure is the use of dry lymph on points or glasses. Another source of failure is an unfit lancet. This instrument should be clean and sharp, otherwise the virus is thrown back upon the shoulder of the instrument, and not a particle enters the wound. The skins of children differ much in the degree of toughness. Failures Dr. G. has observed to be more common where the skin is tough. It is desirable that the lancet should not only be extremely sharp, but have a broad shoulder. The skin should be put well on the stretch

by grasping the arm firmly, and fixing the skin between the finger and thumb of the left hand. "In the hollow thus formed there is ample room for as many insertions as may be desirable." He thinks that six or eight punctures should be made, allowing them all to be effectual, in order to make the proper impression on the constitution. The form is thus:—



The lymph should be taken from a vesicle before it begins to subside. After the tenth day, the virus is scarcely fluid. It can not be safely taken after the 8th day, including the day of insertion. We should say not after the sixth or seventh day. We generally take it on the fifth or sixth day. A fifth-day vesicle, he observes, will not generally afford virus for more than one subject. "An eighth-day vesicle (even when very tumid) can not be relied on for more than six or seven subjects." The younger the lymph (fourth or fifth day) the greater is the degree of intensity. The propriety of inserting a numerous crop of punctures becomes very evident, Dr. G. observes, not only for the purpose of saturating the system more effectually, but for enabling the vaccinator of a public establishment to open a new vesicle for every third or fourth operation. The number of punctures here recommended will not add to the local inflammation, if they are made in the manner above described. The greatest number he has hitherto made was twenty; and, although the constitution sympathises more decidedly in such a case, the local irritation is not, *cæteris paribus*, greater here than under common circumstances. In a few cases he has observed a pretty copious eruption all over the body, of a lichenous character, disposed in crescentic forms, and receding in two or three days.

To ensure the success of the operation, the child should be in perfect health. It should never be vaccinated during hooping-cough. The vaccination *sometimes* fails, "from the prior occupation of the system by some other internal disorder." The most proper age, Dr. G. thinks, for the operation, is between the second and fifth month. If these instructions be attended to, our very intelligent author assures us that—

"Then the charm is firm and good."

II. ANEURISM AT THE BEND OF THE ARM, OCCASIONED BY VENESECTION.

The first case of this kind which we shall notice is related by Mr. Dalziell, R.N. in the 4th Number of the Edinburgh Journal of Medical Science.

Case 1. In the early part of February, 1825, A. Craighton, æt. 37, a seaman, was bled by a surgeon in Lancaster, soon after which a tumour formed at the bend of the arm, and continued to increase. Compression was tried, but it gave so much pain that it was laid aside. On the 7th May, Mr. Dalziell, was called in, and found the arm swollen and œdematous; at its inside, near the tendinous aponeurosis of the biceps was a pulsating tumour, about the size

of a lemon; much pain in the limb; pulse at the wrist small and weak. He was directed to live low, and the tumour was covered with a loose wet bandage. On the 10th the tumour was enlarged; the pulsation in it violent, that at the wrist weak. V.S. ad ℥xij.—purgatives and antimony. The skin now became thinner and discoloured, and, as he was evidently getting worse, the artery was tied on the 13th. It is unnecessary to detail minutely the steps of the operation; suffice it to say, that the vessel was dissected for about two inches lower than the insertion of the deltoid—that every care was taken to avoid the median nerve, &c. that two ligatures were applied, and the artery divided between them, and that, immediately upon the tightening of the threads, the pulsation in the tumour ceased. The wound healed readily; the pulse at the wrist on the 25th was distinct; that in the tumour disappeared; the tumour itself decreased, in size, and, on the 29th June, he was quite recovered. Dec. 2. He had been at sea and remained well. The swelling was no bigger than a hazel nut, and he could move his arm freely.

Case 2. This occurred lately at St. George's Hospital. The patient, James Rogers, æt. 42, a butler, was bled, on the 30th of August, by a surgeon, who wounded the brachial artery. The bleeding was checked by a very tight compress, and the tourniquet. On his admission, Sept. 1st, the limb was much swollen from the extravasated blood, it was very painful, and a large, ill-defined, pulsating tumour was seen at the bend of the arm.

At one o'clock, 36 hours after the accident, the brachial artery was tied by Mr. Brodie, both above and below the puncture, though with some difficulty, in consequence of the displacement of the biceps muscle, &c. by the blood extravasated around. As there was little chance of union by the first intention, the wound was kept open with lint. Next day there was a good deal of irritation, both of the wound and of the system in general. On removing the dressings, much yellowish matter was discharged, and the relief was immediate. The bowels were kept open by senna and jalap, and ten grains of pil. opii were given at bed-time.

On the 11th one of the ligatures came away, and, on the 13th, the other followed. Some degree of tumefaction and pain appeared at the inside of the arm, giving rise to the suspicion that matter was forming there—these symptoms, however, in a few days disappeared. On the 26th an erysipelatous blush appeared on the arm, and spread to the fore-arm, attended with constitutional disturbance, and much pain in the direction of the radial artery at the wrist. By the 30th, however, this had quite gone off. The surface of the wound was granulating, though rather indolently—the hand was not numb, and he had some power over the fingers—there was no pulse at the wrist, nor, indeed, had there been any since the operation, and as the patient was anxious to get into the country, he was dismissed the hospital.

Remarks. This case is one of diffused aneurism; if the case had run on, a sac would most probably have been formed by the cellular

membrane, and the aneurism would have become circumscribed. The treatment, both as to the operation itself and its *sequelæ*, we think highly judicious.

In the Lancet, for September the 9th, there is a report of a case of this kind, treated at the Westminster Hospital, and a curious report, in good truth, it is.

Case 3. A man, æt. 35, was bled, July 30th, by a druggist, who punctured the *radial* (*?*) artery. Hæmorrhage, more or less, occurred every day, and he was admitted into hospital on the 4th of August, when Mr. White "cut down upon the tumour," (what kind of tumour ?) "and secured the *radial* artery above and below the puncture." *Aug.* 10th. Hæmorrhage from a vessel in the wound; this was secured, and the hæmorrhage ceased. The wound now became unhealthy, and the tendon of the biceps and edge of the pronator teres were exposed by ulceration. *Aug.* 22. Hæmorrhage, which, after the loss of thirty ounces, was stopped by the house-surgeon's compressing the brachial artery until the arrival of Mr. Lynn, Jun. who tied that vessel two inches above the upper edge of the old wound. *Aug.* 23. Pulse "a mere thread;" wound sloughy. A consultation was held between Mr. Guthrie, Mr. Lynn, Jun. and Sir A. Carlisle, who observed that, if the hæmorrhage returned, amputation must not be thought of, as the patient had lost so much blood that he would, in all probability, die upon the table! It was accordingly decided on tying the brachial artery higher up, or even the axillary, if the bleeding should return. *Aug.* 24. Bleeding again. Mr. White then amputated the limb just above where Mr. Lynn had applied the ligature. The report leaves the man convalescing, but we learn that he has long since bid the world good night.

On dissecting the limb there was found a large trunk at the back of the arm; the profunda superior was found *unusually* large; so were its radial and ulnar branches, "affording an easy explanation of the cause of the repeated hæmorrhage, viz. the great supply of blood sent by these vessels into the anastomosing branches round the condyles." *No high bifurcation mentioned.*

Remarks. This is a good sample of a Lancet report. Our readers are, no doubt, aware that the consequences of wounding the artery in phlebotomy are fourfold, namely, diffused aneurism—circumscribed aneurism—aneurismal varyx, where the artery communicates directly with the vein—and varicose aneurism, where there is an intermediate sac between the artery and vein, which still communicate with each other. In the two last no operation is required, unless, indeed, in a rare case or two of the *varicose aneurism*, where the sac has so extended itself as to compress the vein, and form a common aneurismal tumour. Now which of these four accidents happened in this case? The reporter merely says, "Mr. White cut down upon the tumour;" but what kind of tumour that was, no one, from the description of the case, can possibly discover. To be sure the scribe, in his *remarks* (*!*) rates Mr. White for cutting

down upon " a varicose aneurism, (which, elsewhere, he calls an aneurismal varyx, two different affections,) but we could almost stake our existence that he does not rightly know what a varicose aneurism is.*

Then, again, the case is introduced as an aneurism of the *radial* artery, but unless there was " a high division," (and not a syllable is said about that,) how came the radial artery in the way? We suppose the *brachial* artery was meant; however, it matters not to him of the Lancet.

The account of the dissection is quite equal to that of the symptoms. Many surgeons, we believe, have an opinion, that if a main arterial trunk be tied, it is not an uncommon thing for the collateral vessels to become, in a short time, very much enlarged. Our *intelligent* reporter, however, appears to be much struck by this singular circumstance, and ingeniously remarks, that it affords " an easy explanation of the cause of the repeated hæmorrhages." An important piece of information this!

After this, no one, of course, will think of reading the partial and inaccurate reports of the surgeons themselves; nor will any one be hardy enough to question the accuracy and talent displayed in the hospital cases of the Lancet. No wonder the latter is furious at the bare thought of " youths of 15 or 16" being obliged by "the tyrannical junto of Lincoln's Inn" to attend some lectures before they walk the hospitals. Why, certes, if this odious and *absurd* law were put in force, the publication in question would be robbed of half those happy illustrations of hospital surgery which now form such an ornament to its columns. No! let the " youth of 15" *walk* the hospital, and furnish as many cases as he will to the Lancet, without being compelled to the iniquitous drudgery of previously learning something of the principles of the practice which he records.

Men of Lincoln's-Inn, look to this.

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12. ON THE NATURAL CURE OF WOUNDS OF THE INTESTINES.†

M. Paillard, Member of the Athénée de Médecine, has read to that body a memoir on the natural cure of intestinal wounds, which may help to explain some of the anomalies which not unfrequently occur in practice.

He observes that the intestine may either be simply punctured, or it may receive a longitudinal or a transverse wound, varying, of course, in extent.

If it be a simple puncture, the muscular coat contracts, and the mucous membrane is puffed up, (boursouffié,) so as to prevent the escape of solid or liquid matters from the opening. Gas may get abroad into the abdominal cavity, but the puncture cicatrizes, and prevents the exit of more, whilst that which has escaped is soon

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* We have, since this was written, made inquiries on the subject, and we learn, what we expected, that the case was one of DIFFUSED ANEURISM!!

† Hop. St. Louis.

absorbed. Cicatrization, then, is one mode of reparation, but another, and, we should say, a more frequent one, is the supervention of inflammation, exudation of coagulable lymph, and adhesion of the punctured part to the peritoneum, epiploon or peritoneal covering of some neighbouring viscus. If it be a longitudinal wound, the same inflammatory action, and the same adhesion to the parts in contact with it, form the natural cure. If the longitudinal wound be very extensive, it often happens that the omentum falls upon it, gets between its edges, contracts adhesions, and thus forms a natural plug, preventing the effusion of the contents of the intestine, within the cavity of which it hangs, and is soon covered by an organized mucous membrane. It is thus, too, that the transverse wounds are closed. But if, as, alas! sometimes happen, the intestine be entirely divided, we dare not hope for this sanative process. In that case, the ends of the gut retract and contract, allowing, at first, only the issue of gas—but soon they relax, the matters they contain are discharged into the cavity of the abdomen, and death, of course, ensues.

One of the most characteristic signs of wounded intestine, whether it is cleft by a sabre, or ruptured by a blow, &c. is sudden tympanitis.

Our author adduces two cases in illustration, which occured in the wards of the Hôpital Saint Louis.

Case. 1. N. æt. 22, was thrown down by a voiture, the wheel of which passed over his belly. On being carried to the hospital, there was found no lesion of the walls of the abdomen—no pain—belly blown up, and sounding like a drum. He was bled several times, and numerous leeches and cataplasms applied to the abdomen. He convalesced quickly, but an unexpected hæmoptysis occurred, which carried him off two months after his admission.

Dissection. The small intestine, at one point, adhered to the peritoneum and last false rib, as well as to the omentum, which lay before it. On examining the interior of the gut, there was found a kind of loose plug, which proved to be the epiploon, enclosed in an opening, nearly four lines in diameter.

Case 2. N. æt. 50, was brought to the Hôpital Saint Louis, in consequence of a beam having fallen with violence on his belly. There was great tympanitis, but little pain. He died the same night.

Dissection 24 hours after Death. The small intestine was entirely divided, so was the mesentery, to the extent of about six lines. The two ends of the gut had separated, and were so contracted as scarcely to allow the introduction of the finger. Stercoraceous matter was found in the cavity of the abdomen.

Remarks. We have thus given a condensed account of M. Paillard's paper, and of his views;—views partly the result of experiments on animals, and partly of clinical observation in the Hôpital Saint Louis, of which he was an "élève interne." The whole forms a sort of corollary to the work which Mr. Travers has published on "Wounds of the Intestines." It appears in these, as in

other cases, that the safety of the patient depends on the supervention of the adhesive inflammation, and this will account for the comparatively greater danger of small punctured, than larger incised wounds. In the former case, the immediate injury to the part is trifling, the call for the reparatory or inflammatory process, therefore, less urgent, and the consequence is, that adhesion often does not occur. In the latter case, an active inflammatory state is at once superinduced, and the chances of adhesion proportionately great.—*N. Bibliotheque, Juillet*, 1826.

13. DR. HEWETT ON FEVER.*

In our tenth Number, page 457, *et seq.* we gave some account of Dr. Hewett's paper on follicular ulceration. The present contribution contains a series of cases treated at St. George's Hospital, upon the principles laid down in his preceding papers. The treatment hinged almost entirely on local depletion, by leeches, from the abdomen, and the exhibition of aperient medicine, generally of the mercurial kind. Mercurial alteratives were also usually administered. When the patients entered the hospital, the period for active purgation (a practice much recommended by Dr. Hewett) had passed, and, therefore, lenient measures only could be employed.

In Dr. Hewett's second paper, in our contemporary, the ingenious author has endeavoured to ascertain the period of the fever, at which the follicular ulcerations become established; but this paper we are unable to analyze as fully as we could wish. His plan of treatment varies necessarily with the stages of the disease. These he divides into three—the *first* comprising the period between the incipient and the complete developement of the mucous follicles, prior to any inflammation or erosion of the neighbouring membrane. The *second*, the period of the incipient and advancing ulceration of the mucous follicles, generally accompanied by some slight inflammation of the neighbouring exhalent surface. The *third* embraces the period of the separation, by sloughing, of the previously disorganized follicles, with their neighbouring structures, and the termination of the ulcers, either in cicatrization, or in the death of the patient. The plan of treatment for the first period is "the effective exhibition of calomel, combined with any other auxiliary purgative and sudorific." In three or four days of this treatment the abdomen generally becomes less hard and prominent, but the purgation should not be left off till the belly feels soft and supple. This system being followed up for five or six days, and the evacuations still continuing unhealthy, Dr. Hewett very judiciously advises the purgation to be slackened for a day or two, and a dose of castor oil given, "for the purpose of ascertaining whether the unhealthy character of the evacuations may not have been prolonged by the continued irritation of the purgatives." He has observed that castor

* Med. and Phys. Journal, Nov. 1826.

oil, in such circumstances, will often bring away natural, though liquid motions, and produce a subsidence of the abdomen.

Dr. Hewett has criticised the therapeutics of the disciples of Broussais, while he acknowledges the merit of their pathological labours.

The second stage of the follicular disease is to be chiefly combated by repeated applications of leeches to the abdomen, while two or three grains of calomel, and the same quantity of James's powder may be given every six hours, exhibiting occasionally, small doses of castor oil. If the bowels are already relaxed, a quarter of a grain of opium, or three grains of extract of white poppy may be added to the pills. The same measures may be pursued even after follicular ulceration has been established, if the symptoms indicate local inflammation and febrile excitement.

These three papers of Dr. Hewett will be read with great advantage by the profession in the pages of the medical journal in which they are published, and to this source we refer our readers for further particulars.

14. MR. EARLE ON LOCAL IRRITATION.*

The " constitutional origin of local diseases" has become so prevailing as greatly to obscure the " local origin of constitutional diseases." The former is the fasionable doctrine in England—the latter in France. Truth lies between; and we are much inclined to think that, as knowledge increases, the local seats of what are considered general diseases will become more conspicuous. The case related by Mr. Earle is a very curious example of the influence of a local irritation over the constitution at large.

A man had been wounded by a musket bullet in the East Indies, so long back as the year 1822. The thigh bone had been fractured, but the ball was removed, and all went on well for six weeks, when the fracture was displaced. After this, repeated abscesses formed, accompanied by much constitutional disturbance. There was a large cicatrix in the place where the ball had entered, and, in its middle, the opening of a fistula, leading to the bone. The bone itself was enlarged. Issues were made in the neighbourhood of the supposed diseased bone, and the general health strictly attended to. The fistulous opening frequently closed, and then opened again; and, during the formation of these abcesses, his health suffered severely, and he had many violent rigors. Acute rheumatism then attacked him in the joints, and afterwards retroceded to the chest and diaphragm, requiring active measures. Then he became affected with a well-marked intermittent fever, which was relieved by bark and ammonia. Worn out by these repeated constitutional attacks, the poor man requested to have his limb amputated. But Mr. Earle, conceiving that there might be some foreign body lodged in the neigbouring parts, keeping up irritation, examined the limb with great attention, and, on discovering a suspicious point, he there made an incision, and detected a large portion of dead bone,

* Med. and Phys. Journal, No. 5, New Series.

quite loose. This was readily extracted, together with two smaller pieces. They were fragments of the femur, being quite bleached and inodorous. From the very day after the operation, all constitutional disturbance ceased—the man rapidly regained his health and spirits—and was discharged quite well.

We agree with Mr. Earle, that the above is a striking example of the effect of local irritation on the constitution, and one in which the connexion between cause and effect is unequivocally established.

15. DRS. HAWKINS AND CHAMBERS ON PURPURA HÆMORRHAGICA.*

[Middlesex Hospital.]

Dr. Hawkins has detailed two cases of this curious disease. The first was a girl, 14 years of age, who came into the hospital covered with petechiæ, of a red colour, interspersed with larger, irregular, and purple ecchymoses. About a week previously, an oozing of blood had commenced from the mouth and nostrils, and the evacuations were dark, but not bloody. Her pulse was 140, skin cold, lips and tongue covered with black sordes, countenance very pale. The plan of treatment was purgation, principally by means of calomel and jalap, taking the acidulated infusion of roses, with sulphate of magnesia, and, towards the commencement of convalescence, some tincture of steel and digitalis. In three weeks she was well.

The second case was that of a boy, 14 years of age, who had been ill, with dysenteric symptoms, before he came into the hospital. Leeches where applied to the abdomen, and he had calomel and opium till the stools became of natural consistence, but they were still attended with discharges of blood. It was now observed that he had numerous petechiæ on his legs and arms, and his debility was extreme. An infusion of mint and cloves, acidulated with sulphuric acid. In a few days the intestinal hæmorrhage ceased; the petechiæ and vibices disappeared, and the strength began to return. In less than a fortnight he was discharged convalescent.

Dr. Hawkins has appended some remarks on this disease generally, which he seems to think, is seldom dependent on increased force of the circulation, the vessels themselves remaining healthy. It appears that he is inclined to refer all cases of this disease to either a preternatural weakness of the capillaries, without increase of impetus, or a concurrence of increased impetus with vascular weakness. Immediately after his communication, however, is a case by Dr. Chambers, treated at the St. George's Hospital, where the inflammatory nature of the purpura was evident.

Dr. Chambers' Case. This was a girl, 16 years of age, who came into the hospital with spots of purpura on the legs, thighs, and forearms. Pulse full and frequent—tongue clean, bowels open. She

* Med. and Phys. Journal, November, 1826.

had been ill nine months with repeated crops of hæmorrhagic spots. Venesect. ad 3x. To take infusion of roses and sulphate of magnesia thrice a day, and to apply a spirituous lotion to the parts. The blood was slightly inflamed. The spots began to fade in two days, and in a week afterwards returned, with blood in the urine and stools. She was then purged with calomel and sulphate of magnesia, and next day bled to eight ounces. After the bleeding, the pulse became small and very frequent, and the patient continued weak, some spots appearing and disappearing from time to time. In three weeks after entering the hospital, she complained of severe pain, tenderness, and tension across the umbilical region—the motions being green—pulse 110, and sharp—tongue furred—skin cool and pale. Bled to ten ounces—saline draughts, with Battley's liq. opii sed. 4tis horis. The blood was highly inflamed—pain relieved by the venesection, but still existing in the right iliac region. Repeated the venesection to ten ounces. Saline draughts, with digitalis and laudanum, were given, and she was put on a milk diet. The blood was not inflamed, but the pain and tenderness were relieved for a day, when they returned, and 16 leeches were applied. She was purged, and once more bled. In ten days from this time she was reported free from complaint. Spots of purpura, however, continued to appear from time to time, and were always removed by mercurial purgatives. On the 12th of May, or 48 days after coming into the hospital, she was attacked with violent pain in the occiput and back of the neck, accompanied with throbbing and some delirium, small quick pulse, dry and warm skin, furred tongue, &c. She was cupped, leeched, blistered, purged, had cold to the head, and antimony and digitalis internally, but in three days she died comatose.

On *dissection*, some of the convolutions of the small intestines were found agglutinated by adhesive inflammation, but no other abdominal disease. It is not stated whether or not the mucous membrane was examined. It was in this part, of course, that disease, if any, was to be expected. In the thorax, they found an ounce of serum in the pericardium—the left ventricle of the heart dilated to nearly twice its natural size—the muscular parietes attenuated—in the corresponding auricle a morbid growth of a condylomatous nature. The mitral valve was much thicker than natural, but not ossified. In the head, the whole arachnoid membrane on the upper part of both hemispheres was covered with a lamina of coagulated lymph, the product of inflammation, and evidently the cause of death.

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16. MEMOIR ON ABSCESSES OF THE LIVER. BY M. LOUIS.*
[LA CHARITE.]

A question has often been started by several physicians, whether an abscess, containing homogeneous, unctuous—in one word, *laudable pus*, can take place in the parenchymatous structure of the liver,

* Repertoire, No. 2, 1826.

or only in the cellular membrane, between its peritoneal covering and glandular texture? The answer in the affirmative will be given by most practitioners who have resided long between the tropics, especially in the eastern world. But assuredly the greater number of abscesses which we find there, do not contain good pus, but a a fluid more resembling the washings of beef. M. Louis observes, that the history of hepatitis is yet very defective, whether we look to the causes, the symptoms, or the terminations. In 430 dissections, where every organ of the body was accurately examined, M. Louis found five examples of purulent abscess in the *substance* of the liver, and not one in the coverings. Of these we shall give a succinct account.

Case 1. A young woman, 21 years of age, of delicate constitution, but not at all emaciated, was admitted into LA CHARITE on the 19th of December, 1822. She had gone through the process of parturition 24 days previously, the labour being natural and easy, and the patient having left the St. Louis, where she was confined, seven days after her accouchement. She caught cold on her way home, and this was the cause of her present illness, which commenced with acute pain in the præcordial region, followed, in the evening, by a succession of shiverings, fever, and perspiration. The pain ceased on the following day, and four days afterwards she was seized with acute pain in the right side of the chest, which was much augmented by the slightest cough. The shiverings had returned each evening, the thirst was considerable, the appetite lost, and there was some nausea when she took drink. She had also a diarrhœa, but without any pain in the bowels. In a few hours after entering the hospital, a great number of leeches had been applied to the affected side, and M. Louis found her the next day, (20th,) presenting the following symptoms: character of distress in the countenance—slight tinge of yellow on the skin—great sense of debility—lumber pains—intellectual functions undisturbed—no headache—tongue soft, red, and dry in the middle, white and moist on the sides—anorexia—thirst—pains in the epigastrium, augmented by cold drink—lies on the *left* side—breathing short, 45 in the minute—pain under the right mamma, deep-seated, and increased by pressure—but little respiratory noise in this part of the chest, no egophony—heat elevated—pulse quick, 120 in the minute, but not sharp—great sensibility to cold air—continuance of the diarrhœa—had had emulsions and lavements in the night.

21st. The nose, lips, and cheeks of a blue cast, the rest of the face pale—debility extreme—tongue dry—pulse extremely feeble and small. The cough was troublesome through the day—much restlessness in the night, talking incessantly about her complaint. She died the next day, (23rd,) after being some hours delirious.

Dissection. There was nothing worthy of notice in the head. In the chest, the heart and aorta were sound. In the left lung there was a crude tubercle at the upper part, and some grey granulations throughout the lung generally. In the right side, the pleura pulmonalis, costalis, and diaphragmatica, were covered by a soft, yel-

low, false membrane, with five or six ounces of serous fluid effused in this cavity. No engorgement of this lung, but the bronchiæ were of a brownish red colour throughout. In the abdomen, the stomach and intestines were much distended—the form and size of the liver were natural—its middle lobe of an orange colour—the great lobe was intensely red throughout its whole substance, and softer than natural. In the centre of this lobe was found a cavity, capable of containing an ordinary hen's egg, filled with pus of a slightly greenish hue, of a good consistence, and without any smell. The cavity was lined with a false membrane, of a greyish white colour, being about the thickness of the mucous membrane of the stomach. In the vicinity of this abscess the liver presented the same appearance as in other parts of its structure, except that it was somewhat softer, for the space of three or four lines, round the parietes of the abscess, than in the rest of the organ. There was nothing remarkable in the biliary ducts, and the gall-bladder contained some bile as thick as molasses. The mucous membrane of the stomach was softened in some places, and indurated in others, especially near the pylorus. There was evidence of inflammation in some of the small intestines. There was no other morbid appearance of any consequence in the body, except some traces of inflammation in the uterus.

Remarks. That this was an abscess in the substance of the liver there can be no reason to doubt; but that it was not of so recent a formation as the inflammation in the rest of the liver, there is every reason to believe from the state of the parietes of the abscess. The death of the patient we cannot attribute to the hepatic inflammation, or suppuration; nor yet, perhaps, to the pulmonic, but chiefly to the gastric, in combination with the other phlogoses, so strongly developed in this patient. The severe pain in the epigastrium, the nausea, and the diarrhœa, were symptoms of the gastritis and enteritis. However, there was quite enough to account for the death of the patient, on the whole.

Case 2. A man, 23 years of age, of apparently good constitution, well-made, active, and sober in his habits, experienced, in March, 1824, all the symptoms of an inflammation of the mucous membrane of the stomach and bowels. The complaint soon gave way to energetic antiphlogistic treatment, and he left the hospital in a month, with only a slight diarrhœa. This last continued for two years, without any disturbance of the digestive functions, or prevention of his usual avocations. When he returned, on the 24th of March, 1826, he had lost none of his embonpoint. He reported that during the last two years he had had frequent headaches, with giddiness, for which leeches were often applied. During the last two months, the head affections were constant, and for ten days previously, they were accompanied by other severe symptoms, which confined him to his bed. On the 22d of February, when the present illness commenced, he had shiverings, followed by thirst, anorexia, &c. The shiverings did not return, but a continued fever-

heat succeeded. During the last five or six days, there were nausea, slight pains in the bowels, constipation, restless nights, some cough. He had been twice bled, without relief.

25th *March.* Expression of suffering in the countenance—intellectual functions not free, the least attempt to exert the memory being accompanied by distress. There is some cephalalgia—giddiness on sitting up—an ulcer at the bend of the left arm, where he was bled—and an abscess on the spot where the vein was opened in the right arm—anorexia—thirst—pasty mouth—tongue dry in the centre, white and moist at the sides—pain in the epigastrium on pressure—three liquid motions in the last 24 hours—pulse full, and very frequent (144 in the minute)—heat not very great—no cough at present—universal malaise, without the power of describing what it was. Bled from the foot—lowest scale of diet—diluents.

He had six stools in the night, which was spent in great agitation. Next morning (26th,) the cheeks are red—the whole surface of the body tinged yellow—thirst more urgent—epigastrium very little painful, the supra-pubic region more so—the right hypochondrium tense, and very tender on pressure—pulse 116—debility increased. Twelve leeches to the anus—ptisans. 27th. Much blood flowed from the leech-bites—the yellow colour of the skin is deeper—the patient only complains of pain when the abdomen is pressed—the cheeks are of a purple-red colour—the physiognomy sombre—pulse 108—skin dry and hot. In the course of this day the stools became involuntary. 28th. The yellow colour still more intense—constant somnolency. Bled to ten ounces. The blood was covered with a yellow buff—stools involuntary. 29th. Was incapable of speech. The tension in the hypochondrium was increased, and the whole abdomen very sensible on pressure. The respiratory noise was very loud in the left side of the chest; very dull in the right. The same with percussion. Death closed the scene before daylight of the 30th.

Dissection. There were appearances of inflammation in the brain and its membranes. There was also inflammation, as well as infiltration, in the throat. The heart was sound. In the left lung, near its summit, were two broken-down tubercles, containing fluid purulent matters. In the right lung were also two excavations. The right lung was covered every where by a false membrane, which adhered slightly, except at one place, to all the neighbouring parts. In the bag formed by the pulmonary and costal false membrane, half a pint of thick purulent matter was contained.

The LIVER was voluminous, and descended four inches below the margin of the ribs; it was very red, and much softer than natural. Between the liver and diaphragm a quantity of pus was seen, which issued from a large abscess in the substance of the organ. The cavity of the abscess was divided into two by an incomplete partition: one was as large as a goose's egg—the other would have contained a hen's egg. These cavities contained, along with some good pus, a quantity of troubled fluid, of a greenish colour, and resembling curds and whey. The abscess was lined by a

false membrane of no great consistence, and easily separable from the substance of the liver, with which it was in contact. The bile in the gall-bladder was more viscid than natural—nothing particular in the biliary ducts. There were marks of inflammation in the mucous membrane of the stomach. The kidneys were double their natural size.

M. Louis has made a great many comments on this case, but none of them of any particular interest; we shall therefore proceed to facts.

Case 3. A medical student, 22 years of age, of rather weakly constitution, was seized, shortly after his arrival in Paris, in November, 1821, with diarrhœa, which continued six months, and did not entirely vanish till after his return to the country. In January, 1823, the bowel-complaint was renewed, and again persisted pretty severely for six weeks, when it ceased. The diarrhœa disappearing, he complained of pain in the right hypochondrium, which became suddenly aggravated, with a slight icteritious tinge of the skin. M. Chomel was now summoned to the patient, and found him in the above condition—his skin and urine being yellow—the hypochondriac pain very violent. In the course of the next day he passed a quantity of black coagulated blood by stool. This discharge continued three days, and the quantity lost was estimated at nine or ten pounds. Cold lavements, ices internally, and opium were prescribed. On the 7th of April, M. Louis saw the patient for the first time. Debility and emaciation were great—the sclerotic coats of the eyes were of a greenish hue, all the rest of the body of a pale yellow colour—tongue pale and moist—little thirst—complete anorexia—belly drawn in—right hypochondrium tender, but not much so—fæcal matters of a yellowish green colour, puriform, and of a heavy odour. He had four or five stools daily since the cessation of the hæmorrhage—respiration natural, pulse much accelerated, small, and feeble. During the succeeding days, the pains in the hypochondrium diminished—and on the 12th were much exasperated, and were alleviated by an other large discharge of blood from the intestines. This sanguineous discharge ceasing, the stools again became puriform. Towards the beginning of May, the patient's appetite had returned, and he ate greedily, without any weight in the epigastrium, diarrhœa, or pain any where. The skin was now but slightly tinted yellow, and the pulse had come down to its natural level. The debility was diminishing—he was able to walk a little in his chamber, and he got sleep by means of a gentle opiate at night. He talked of returning to his friends in the country, but not being equal to that enterprize, and all his finances exhausted, he entered the hôpital La Charite, under M. Chomel. He did not feel much fatigued by the removal, and only complained of debility when placed in a warm bed in the ward St. Jean. But his emaciation was extreme—tongue pale and moist—belly torpid—pulse calm. On the third day after entering the hospital, he took some chicken with a relish, but he soon fell off, became op-

pressed in his breathing, and died on the 9th of May, while M. Louis was going round the ward.

Dissection. Passing over the appearances in the brain, which was a little softer than natural, we come to the right lung, which was hepatized, and covered by false membranes of soft consistence. The liver did not descend below its usual depth in the abdomen—was of its natural size, but of a deep red colour, interspersed with yellow spots. On making deep incisions in various directions, there were seen a number of roundish yellow patches, from three to eight lines in diameter, and occupying the greater part of the parenchymatous substance. These patches were found to be an assemblage of globular cysts, from two to three lines in diameter, containing matter of a greenish yellow colour, thick, and decidedly purulent. In some places, the pus was broken from the cysts, and extravasated into irregular excavations, five or six lines in diameter. On making a deep incision, an excavation, capable of containing a walnut, was found, filled with black coagulated blood, disposed in concentric layers. This cavity was lined by a double false membrane, the inner fold of which was red, while the outer was of a greyish white, and strongly adherent to the parenchymatous structure of the liver. There was no direct communication between this cavity and the vena portæ, or biliary ducts, in which there was nothing remarkable to be seen. The mucous membrane of the stomach was of greyish colour throughout, but of normal thickness and consistence. No appearance of inflammation in the duodenum or small intestines, except near the ileo-cæcal valve, where there was evidence of six ulcerations perfectly cicatrized, of oval forms, from six to eight lines in diameter. These cicatrices were at once distinguishable by depressions, evident to the touch as well as to the eye. The mucous membrane of the large intestine was very much softened, and the descending colon, sigmoid flexure, and rectum, were full of small ulcerations, some of them penetrating to the muscular coat. The other viscera were of a natural appearance.

This is an interesting case. There can be little doubt that the black blood discharged in such large quantities, *per anum*, proceeded from the liver. The pathological condition of the small and large intestines is also worthy of notice. But on these points we leave our readers to their own reflections.

Case 4. A sailor, aged 50 years, lame, and paralyzed of one leg from youth, was received into La Charite, on the 15th of October, 1825. He had been ailing for three or four years, but had been much worse for the preceding seventeen days. He attributed his illness to moral causes—anxiety of mind, and profound grief. The digestive organs had been much deranged during the four years preceding. He had had slight pains in the left hypochondrium—seldom nausea or diarrhœa, and alternately he gained and lost flesh. At the commencement of his present illness, he experienced febrile heat, without chills, yellow suffusion over the whole body, complete

anorexia, sharp pains in the epigastrium and left hypochondrium, slight oppression. These symptoms had persisted up till the moment of his reception into the hospital, with the addition of diarrhœa and some nausea during the last eight days. There was now deep jaundice of the skin and eyes—cephalalgia—pains in the limbs and loins—tongue coated—complete anorexia—ardent thirst—gravitative pain in the epigastrium—apparent enlargement in the region of the liver, below the false ribs, extending across the epigastrium to the left side—accelerated breathing—respiratory noise but faintly heard by the stethoscope—pulse 120 in the minute, strong and hard—skin dry and hot—bowels not opened for 36 hours. *Venesection to ten ounces—diluents—low diet.* From this time till the 30th, the day of his death, the following symptoms were noticed, *viz.* continuation of the jaundice—severe pain, on the 17th, in the region of the gall-bladder, which continued more or less afterwards—no nausea or vomiting—stools only procured by glysters—urine abundant, but of very deep colour—crepitation in the left side of the chest, and afterwards in the right. On the 28th, delirium commenced, and on the 30th death took place.

Dissection. Some traces of inflammatory action in the brain and its membranes. Lungs adherent—the upper portions crepitous, but the inferior gorged with blood, and easily torn. The air-cells were much dilated—the bronchia red, thickened, and enlarged, containing some mucus—heart adherent to the pericardium by cellular shreds. In the abdomen, the liver was found to be rather larger than natural, and presented several yellow patches on its surface. In its substance were a number of small encysted abscesses, from four to five lines in diameter, containing thick pus, of a greenish yellow colour, and lined with a regular white membrane, which was soft, and easily separated from the surrounding parenchymatous structure of the liver. The substance of this organ was every where softened, and redder than natural. The gall-bladder was very small, contained only some mucus and its duct obliterated. Its parietes were more than a line in thickness. In the cystic duct was a calculus, eight lines in diameter, compressing the hepatic duct. In the stomach there were some places inflamed and softened—some perfectly sound—and others completely ulcerated. There was some evidence of inflammation in the mucous membrane of the small intestines, and unequivocal proof of the same in the colon. The other viscera natural, except the spleen, which was twice its natural size.

The above case offers materials for some useful reflections. There can be little doubt that the original cause of this series of organic changes may be traced to the mental anxiety, of which this unhappy man was the prey. This state of mind led to the disorder of the digestive organs, and ultimately to the structural disease in the same organs, as well as in the heart. The changes found after death accord with the symptoms during life, with the exception of the *apparent enlargement of the liver* felt below the margin of the ribs, and extending across the epigastrium. We have known many instances where

deception of this kind was occasioned by a loaded transverse arch of the colon, giving the feel of en enlarged liver. Even the upper belly of the rectus muscle, on the right side, will deceive the incautious examiner, by its hardness and prominence, when the fingers are thrust hard under the ribs.

Case 5. A gardener, 55 years of age, of middling constitution, and not addicted to excesses in wine, but rather short of breath for many years, was subject to annual attacks of pulmonary catarrh for the last six years. The present attack had lasted five months when he entered LA CHARITE, 28th march 1823. To this was added, recently, a pain in the left side of the chest—chills and heats alternately—restlessness and wandering in the night—anorexia and thirst. Emaciation had lately made progress. 29th. Cephalalgia —pain in the limbs and loins—great sense of debility—intense thirst—mouth pasty—tongue white and coated, except at the point and sides—constipation of bowels—pain in the left side, increased by coughing; crepitation of the same side—percussion obscure—respiration tracheal. Nothing remarkable on the right side—expectoration mucous, with some globules of semi-transparent matter —pulse 80. *Ptisans—a blister—venesection to ten ounces.* The dyspnœa was relieved, and the pain quickly disappeared. The patient sometimes had a little appetite, but generally there was complete anorexia. On the 11th April, some diarrhœa came on, and continued more or less till his death. Towards the latter end of May, jaundice, of rather a deep hue, supervened, and continued to increase in intensity, till the end—at the same time he complained of pains in the right side of the epigastrium. On the 25th May, these pains were very acute, and pressure was insupportable. By the first of June, these pains occupied a larger extent, occupying the whole of the right hypochondrium, and part of the epigastrium, also a part of the right side of the chest. These continued without interruption till his death, that is, for the space of a month. The pulse came down to 60 in the minute, and did not latterly exceed 65. Debility made rapid progress while in the hospital, so that at last he could hardly move his arm. He lay on the right side, with his head low, and made but little complaint. The intellectual functions were little disturbed till within a few days of his end, when delirium came on. We need not allude to the medical treatment, since nothing could be done but mitigating symptoms.

Dissection, 1st July. The left lung adhered to the ribs, and its upper portion was covered with a semi-cartilaginous false membrane, under which the parenchymatous structure of the lungs was firm, and of a dark grey colour. In the right lung there was a good deal of infiltration of a reddish fluid, and eight or ten ounces of effusion into that of the chest. The bronchiæ were red on the left side. The liver did not descend below the edges of the ribs. It was of a variegated colour, and contained from 30 to 40 small cavities, varying in size, from that of a pea to that of a walnut, filled with greenish pus, of moderate consistence. These small abscesses were not encysted, their parietes being merely the parenchymatous substance of the lungs a little consolidated and reticulated.

The structure of the liver generally was softened. There were some calculi in the gall-bladder, and its mucous membrane was thickened and ulcerated. There was nothing worthy of notice in the other viscera.

M. Louis makes some observations on the symptoms of hepatitis, in which we agree with him; and some in which we differ. He properly observes, in the first place, that in none of the cases above detailed, was the disease of the liver uncomplicated with affections of other organs. As to the symptoms, however, which unequivocally appertain to the hepatitis, it may be remarked that, in four cases out of the five, there was jaundice, with pain in the right hypochondrium—and in two only was there *tension* in this part. An union of these three symptoms M. Louis observes, characterizes hepatitis, with sufficient accuracy, but no one, nor even two of them, are satisfactory proofs that the liver is inflamed. Jaundice may obtain without hepatitis: and as for *pain*, it may be seated in neighbouring parts, though apparently in the liver. "But," says he, "it is quite otherwise when pain and jaundice supervene in the course of chronic maladies—for then it is a proof of inflammation of the liver." Of this we entertain doubt:—for the pain may still be in other parts than the liver, and the jaundice may be occasioned by mechanical obstruction of the ducts, from the pressure of a tubercle or other tumour, quite unconnected with any decided inflammation.

None of M. Louis' patients experienced pain in the right shoulder —"and we are very doubtful," says he, "whether this symptom, so much insisted on by authors, be really indicative of hepatitis. Perhaps, in those cases where it is present, it is attributable to some affection of the lung or pleura of that side." Perhaps it is; but, at all events, it is far from being so common, either in acute or chronic hepatitis, as is generally believed.

In respect to the *causes* of hepatitis, our author disbelieves that it is more frequent in hot than in cold climates—and this on the authority of P. Frank, who, it seems, has practised in climates the most opposite. It is quite unnecessary to contradict M. Frank in this place—since English physicians and surgeons know better. It is true this disease is not equally prevalent in all hot climates—but take India, for example, and we shall find that hepatic affection is just as characteristic of that country as pulmonic affection is of England.

"It has been insisted on of late," says M. Louis, "that, where hepatitis is not directly caused by external violence, it is always owing to inflammation of the mucous membrane of the duodenum." This doctrine, we believe, is that of the younger Broussais. It is scarcely worth refuting. M. Louis dryly observes, that, in four cases out of the five here detailed, the mucous membrane of the duodenum was only inflamed in one.

Blows on the head have been enumerated among the causes which produce abscess in the liver. Our author does not believe in the truth of this point of etiology; but certainly observation (and nothing but this could ever have led to the belief) has shown that, in blows and injuries of the head, there is more frequently abscess

of the liver induced than of any other organ. Because we can not account for such a circumstance, are we to deny it in the face of facts?

In respect to discoloration and softening of the parenchymatous structure of the liver, our author wisely acknowledges that, in the present state of our knowledge, we can not set them down as proofs of preceding inflammation.

One remark of M. Louis is very curious, namely, that abscesses in the liver are incurable, since he has never been able to find a cicatrix in any dead body. But those who have practised in our Indian colonies know that abscesses of the liver will heal occasionally, whether they are opened externally, or make their way into the intestines. The most unequivocal proofs of this are every day seen in the East Indies. We do not, indeed, maintain that abscess, the result of chronic or sub-acute inflammation, in this or in any other country, where there is an encysted character, as in all the above cases, and where there is general tendency to organic disease, is likely to heal. But where acute inflammation terminates, in the course of fourteen or fifteen days, in suppuration, there we have a chance of cure, especially if the tumour points externally, and the knife is applied in proper time. Fortunate results are frequently seen under such circumstances.

Upon the whole, we feel indebted to M. Louis for his very minute and circumstantial detail of the symptoms and dissections in the above cases, and have pleasure in giving them a registry in our Journal.

17. MR. STONE ON POLYPUS UTERI.*

The object of Mr. Stone, in this paper, is to prove that, after the removal of firm polypous tumours, *attached by a narrow neck* to the uterus, although the greater portion, or the whole of the peduncle by which they were connected should remain above the ligature, yet that this will be thrown off by nature, and the organ left in a healthy state. This however, will not be the case where the tumour is of softer consistence, and where the attachment to the uterus is nearly of the same diameter with the tumour itself. In these last cases, it appears that a great part of the uterus is involved in disease, and the tumour is soon reproduced. Examples of this reproduction are given by our author. But although the tumour, under such circumstances, is almost sure to grow again, Mr. Stone thinks the removal of it is proper, in order to prolong life where we are unable to effect a complete cure.

Case 1. Mrs. B. aged 47 years, had been suffering from a coloured discharge for two years, attended by occasional coagula of blood. Menstruation had ceased. On examination, a polypus, the size of a plover's egg, was found in the vagina, its neck being surrounded by

* Mr. Stone on separation of the neck of polypus of the uterus, after the removal of the body of the tumour. Med. and Phys. Journal, No. 5. New Series.

the os uteri. A ligature was passed round the tumour, and tied by means of a canula. On the two succeeding days it was tightened, and, on the third, it came away, the ligature still remaining upon the neck of the tumour, and there being a portion, half an inch in extent, above the point of the peduncle round which the ligature had been applied. In a short time the discharge ceased, and the woman recovered. This happened in 1819, at the St. George's and St. James's Dispensary.

Case 2. A poor unmarried woman came to town for advice in 1817. She had laboured many years under profuse discharge from the vagina. Mr. Clark discovered that she had a polypus as big as a child's head. The polypus was removed; but the woman was attacked with symptoms of peritoneal inflammation, and died. On examination, the os uteri was found somewhat more dilated than usual, but otherwise in a natural state. The neck of the tumour, which was of a very small size, compared with the tumour itself, was still attached to the fundus uteri, but the point of attachment was very small, being much thinner than any other part of the neck of the tumour, and nearly separated from the uterus. The preparation is in the author's collection.

18. TETANUS.*

Any contribution to the pathology of a disease so involved in obscurity and so indomitable as tetanus, must be both of interest and importance. Mr. Swan of Lincoln, as our readers will recollect, has brought forward cases to prove that the cause of tetanus consists in an irritation and inflammation of the ganglia—others are of opinion that the spinal marrow is the seat of the affection. The following cases which occurred in public institutions go to favour the latter hypothesis, but not to *overthrow* the former, as we shall see presently.

Case 1. Coquillard, a hair-dresser, of bilious temperament but strong constitution, was admitted into the Saint-Louis under M. M. Cloquet and Richerand, on the 8th May, 1826. On examination there was found a carbuncle on the upper and inner part of the left leg. M. Richerand made a crucial incision into the tumour, and poultices with the warm bath were ordered. All went on well till the 15th, when trismus made its appearance. On the 19th tetanic paroxysms developed themselves;—*acetat. morphin.* gr. ij.—*venesection.* 20th. Opisthotonos—*acetate of lead—acetate of morphine to the wound.* 21st. M. Cloquet made large and deep incisions on each side of the spinal column from the occiput to the loins—cupping glasses were then employed. 23d. The patient sunk during a convulsion.

Dissection, 40 *hours after death.* The veins of the spinal dura

* Messrs. Monot and Jobert. Hôp. St. Louis et St. Antoine. N. Bibliothéque, Août, 1826.

mater were much congested—the dura mater itself was injected, so was the pia mater—the membrana propria of the marrow was red and thickened. On cutting into the marrow, it was found red and so soft, except in the centre, as to be almost diffluent—this state obtained from the fourth cervical to the fourth or fifth dorsal vertebra. The dura and pia mater of the brain were much injected. The branch of the sciatic nerve distributed to the site of the carbuncle was encircled by quite a vascular net-work—mucous membrane of the stomach and bowels inflamed and even nearly ulcerated in parts.

Case 2. Pradot, æt. 22, a mason, entered the Saint-Antoine, August 18th, 1822, for an extensive injury of the arm. On the 22d, four days after admission, tetanus showed itself; the symptoms were similar to those in the last case. He took two doses of 50 drops of laudanum. On the 29th he died.

Dissection, 24 hours after death. The membranes of the medulla, with the exception of the dura mater, were injected; so was the medulla itself—nodus cerebri red and harder than natural—all the nerves were reddened.

Remarks. It will be observed, that in both these cases there is no mention made of the state of the ganglionic system. In the first case it seems almost probable that this system was primarily affected, for the surface of the stomach and bowels with which it is so closely connected, was much disorganized. The dissection in the second case appears to have been so superficial that little or no inference can be drawn from it. It is rather curious that in one instance there should be morbid *softening* of the medulla, and, in the other, morbid *hardening* of the nodus cerebri. There was evident inflammation of the membranes and of the substance of the medulla in both, the indication, therefore, both from the results of these, and indeed from those of the majority of cases of tetanus, would be active antiphlogistic treatment. Opium, however, and that in larger doses than are usually employed in this country, must not be neglected.

It is also to be remembered that, from the intimate sympathy existing between the ganglionic and spinal nerves, any irritation in the former may very readily excite morbid phenomena in the latter. If worms in the primæ viæ produce convulsions, so irritation of the semilunar ganglia may produce tetanus. In either case, there may be nothing found on dissection, as many post mortem examinations prove. In other instances, the irritation may go on to inflammation and then the traces of this state may be found in one or both of the systems of nerves.

N. B. We have been obliged to transfer some articles which ought to have come into this department of the Journal to the succeeding division of the Periscope, in consequence of their late arrival. This, however, is not attended with any inconvenience, as they will still be distinguished as HOSPITAL REPORTS.

(*Concluded from page* 144.)

CHAP. VII. *Treatment of the Lining Membrane or Nerve, when exposed, previously to Stopping.* Mr. K. by way of introduction to this, his final chapter, shows conclusively that the common method of managing exposure of these parts, is "both cruel and contrary to reason;" and then, having done this, proceeds to expound the "proper and judicious treatment," which he "has practised for upwards of thirteen years, with much satisfaction and success." It is "the only one calculated to ensure success," and is this—1st. After removing every cause of symptomatic inflammation, to arrest the caries, and consequently to prevent irritation of the internal membrane: 2d. To suppress the hæmorrhage, and to cure the wound of the membrane, if it be wounded; and 3d. To protect the membrane artificially against the action of all foreign agents.

The first of these objects is to be obtained by extirpating all the carious particles, and, if the lining membrane has not been injured, by immediately plugging the cavity with gold. When the membrane has been wounded and a hæmorrhage ensues, he attempts to stop the bleeding with weak acids and styptics; and, on these failing, he resorts to the actual cautery for the purpose of effecting an artificial contraction of the wound; he uses a red hot wire for this purpose, and performs the operation very adroitly and without any loss of time. When the hæmorrhage has been arrested in this way, and a cicatrix formed, he washes the cavity with warm water, so as to make it perfectly clean; and after waiting till Nature has ultimately healed the wound, completes the process by filling up the cavity in the tooth with metal. This is done by first laying a small plate of very thin lead-leaf upon the exposed nerve and surrounding bony parts, and then plugging the aperture accurately with gold. He covers the nerve with lead, because he "believes this metal has a *cooling and anti-inflammatory effect upon the irritated nerve*, at least, it possesses these qualities in a greater degree than gold." Subsequently to the operation, the patient should guard against imprudent exposure to the damp and cold air, and to every sudden change of temperature, and the teeth must be kept clean by the use of some suitable dentrifice, good brushes, and warm water. When there is a tendency in the constitution to inflammatory excitement, the gums ought to be often bathed with tincture of myrrh and warm water, in equal parts: if the tooth is painful, the gums must be scarified and the bleeding promoted by warm fomentations; and, when the blood ceases to flow, the myrrhine lotion, with a little honey, is to be continued. Mr. K. has seldom found benefit from the application of leeches to the gums: we have. In many instances, the pain ceases with the operation; but, sometimes, the tooth becomes occasionally painful during several months: as long, however, as it possesses vitality, there are hopes of a cure. When the tooth grows loose and has a pale colour, and the gums are red, swollen, suppurating and painful, with ulcers and fistulous openings, the nerve is destroyed, and the tooth should be forthwith extracted. If, after three months, the tooth retains a natural appearance, and is free from pain without being insensible or loose, the cure may be pronounced as complete: five out of six teeth, our author avers, can be preserved alive by such treatment.

We do not, in conclusion, expect Mr. Koecker will be over well satisfied with our remarks on his book, but we trust that our readers will. Throughout the article, we have essayed to secure approbation for the best parts of the volume, many of which appear to be original; and, we are sure, likewise, that no injustice has been done to those which are his only in common with other writers on dental surgery. Our chief objections relate to the excess

of his severity; and to the assiduity wherewith he has picked out, for animadversion, whatever weak parts could be detected in the writings of others. The manner also in which his strictures have been made on Hunter, Fox, and Duval, is objectionable; in regard to the two former, he should have been pleased to remember, that bare justice at the very least, was due to the illustrious dead; for both of these surgeons were excellent philosophers, and each of them contributed infinitely more to the advancement of dental physiology and pathology, than the small number of their defects will conduce to retard the progress of these intricate branches of knowledge. Mr. Fox, for instance, directs that, "in stopping a tooth, a piece of gold or tin-foil leaf is to be introduced, and carefully and firmly pressed in, so as completely to fill up the cavity;" and, at the end of the section, mentions merely, but does not at all recommend, a fusible metal, pointed out to him by some chemists, as being applicable to the same purpose: it was, therefore, uncharitable to select this as a subject of severe sarcasm, and at the same time pass over in silence the very practice our author himself employs. A comparison, moreover, of M. Duval's doctrines with those of Mr. K. would elicit something by which the latter might be edified. In fine, by condensing his volume into one-third of its present size, and by unveiling his practical rules of all sort of mystery, Mr. K. will transform it into a useful work, and obtain for himself the dignity of an honourable and zealous cultivator of his profession.

We have reason to know that Mr. Koecker is a very excellent practical dentist; and that the zeal and ability with which he manages every operation he undertakes, are truly praise-worthy. These qualifications will, we trust, ensure him patronage and success in this metropolis; but we would have proved ourselves his greatest enemies, if we had failed to point out to him the objectionable parts of his writings.

IX.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING

The Spirit of the Medical Journals,

Foreign and Domestic;

WITH COMMENTARIES.

PART II.

ANALECTA.

"Ore trahit quodcunque potest, atque addit acervo."

1. DISEASE OF THE HEART.

In the last number of the Medico-Chirurgical Review, page 606, allusion was made to the case of Mr. P. (a half-pay quarter-master) residing in King Street, Westminster, as labouring under "organic disease of the heart, with its usual consequences, effusion, &c. &c." as ascertained by auscultation. This patient died suddenly in the night of the 14th October, just two months after the above diagnosis was given, and one month after it was published. We examined the body in the presence of Dr. G. P. Morris, Mr. Ollier, Surgeon of the Western Dispensary, Mr. Lavies, Mr. Clapton, and Mr. Henry Johnson. The following were the appearances:—Œdema of the lower extremities—two or three pints of water in the abdomen—right cavity of the chest filled with clear serum, the lung of that side being shrivelled to about twice the size of the fist. No marks of inflammation in that side of the thorax. In the left side nothing but an immense pericardium could be seen, on first inspection, the lung being quite concealed. The pericardium was thickened by successive layers of coagulable lymph, and agglutinated to the sternum in front and to the ribs on the side. When opened, a heart of most enormous dimensions presented itself. The apex of the heart was firmly glued to the pericardium by a strong and ancient adhesion, the size of a shilling. The parietes of the left ventricle were *one inch and three quarters*, in some places, thick—the cavity of the ventricle in proportion. The mitral valve appeared shrivelled and greatly out of proportion to the other parts in the neighbourhood—it could not be made to cover the auriculo-ventricular opening, and was therefore quite imperfect in its function. The auriculo-ventricular opening was of great calibre, so that the two chambers were almost one cavity with an imperfect valve intervening. The left auricle was dilated, proportionally with the ventricle, but its parietes not proportionally hypertrophied. The parietes of the right ventricle were not half an inch in thickness, but the chambers on

...ries were enlarged greatly. The semilunar valves at the origin both of the aorta and pulmonary artery were unaltered; but the origin of the aorta itself was rather widened so that the semilunar valves, at this part, could not have completely shut the root of the aorta, when the ventricle was in a state of diastole. Scales of bone covered the root of the aorta, which was only enlarged for about the space of two inches from the heart. The vessel, from that point, possessed its natural calibre. The heart was computed to weigh about two and a half, or three pounds.

In the abdomen, marks of extensive chronic peritonitis every where existed. The convolutions of the intestines were glued together in many places, and to the reflected peritoneum. The stomach was glued to the liver and to all the contiguous parts. The liver itself was small and condensed, and its peritoneal covering whitened with coagulable lymph. Its structure was granite-looking, and a large white tubercle, an inch and a half in diameter, was cut through, in making an incision into its parenchymatous structure. The gall-bladder was so agglutinated to the neighbouring parts, especially to the colon and stomach, that we had some difficulty in bringing it into view. It contained a number of small angular calculi, as black as jet. They changed colour, however, on being heated, and were evidently the common biliary calculi The coats of the gall-bladder were much thickened; but the state of the ducts could not be properly ascertained amid the mass of adhesive inflammation in which they were entangled. The stomach was very large, and its mucous membrane extensively discoloured, nearly black in many places, and a considerable portion softened and quite abraded. We had not time to examine the mucous membrane of the intestines. There was nothing else remarkable.

We think the foregoing case is interesting, as verifying the diagnosis which was given two months previously, by aid of auscultation and percussion, in the presence of several medical gentlemen, especially Dr. Marshall Hall, Dr. Hewett, Dr. Macann, Mr. Lavies, and others. This diagnosis, as respected the organic disease of the heart and the effusion in the chest, the two principal features of the disease, could not have been given, with any thing like confidence, except through the aid of percussion and auscultation. The action of the heart was perfectly regular, and the pulse rather small, to the last; nor did the patient ever complain of much pain or uneasiness in the region of the heart. In fact, his attention was directed to symptoms in almost every part of the body, except the spot where the fatal disease was situated. Mr. Parker had led rather an irregular life, as a soldier, and had been intemperate till lately. He dated the origin of his complaint in November, 1825, when he had been straining rather violently while brewing some ale. He then felt a sudden pain beneath the right scapula, near the shoulder, which continued for several months. Next followed dyspnœa on going up stairs, with sudden feelings of suffocation, causing him to start up in bed. Pains in the epigastrium and region of the liver succeeded, with a sense of beating at the pit of the stomach. After these symptoms had continued for a few months, he got into a state of great irritability and irascibility, complaining of such a host of strange and anomalous feelings in various parts of the body, that he was set down by more than one or two of his medical attendants as completely hypochondriacal. Dropsical effusions, however, in the lower extremities compelled the physicians who took this view of the case, to fear that there was something more than fancy in the business. The biliary secretion was depraved—the appetite irregular—the digestion imperfect. Then, of course, the digestive organs were considered in fault, and mercurials and bitters were employed, as well as diuretics; but these produced no permanent benefit, and the poor man was driven almost to insanity by the horrible feelings of mind and body. Still the disease of the heart was not suspected. Though the state of the breath, the paucity of urine, and œdema of the

lower extremities, led to the belief that hydrothorax was impending. Such was the state of the case when the writer of this article was consulted, on the 26th of June last, nearly five months before the fatal termination. A single application of the ear detected the organic disease of the heart. The pulsation could be heard even in the right side of the chest; but the most remarkable phenomenon was a whizzing or purring noise in the region of the heart, corresponding exactly with the ventricular contractions, or, in other words, with the pulse. This led at once to the conclusion, that there was disease, or at least imperfection, in the valvular apparatus of that side of the heart, while the extent of pulsation left no doubt of the enlargement of the organ. The chest sounded very badly in the region of the heart, and no respiratory murmur could be heard in the lower three-fourths of the *right* side of the chest. These phenomena were verified by numerous auscultations, and Dr. Marshall Hall confirmed them by two separate examinations, in the month of August following. Neither Dr. Hall nor Dr. Hewett, however, were quite satisfied respecting the nature of the disease of the heart, though convinced that there was hydrothorax of the right side in particular.

It would be interesting to trace the origins of the various organic changes which this unfortunate officer presented on dissection, but no regular or minute history of the symptoms could be obtained, in consequence of the afflicted patient's running from one medical man to another in the vain hope of cure. The reporter, however, saw him every day, for nearly five months, and never had reason for altering the opinion formed during the first interview. There can be little doubt that the enlargement of the heart was the primary disease. The adhesions and thickening of the pericardium bore all the marks of long standing inflammation; and the band which united the apex of the heart, with the internal surface of the pericardium, was as white, dense, and strong, as ligament. We conceive, then, that the enlargement of the heart had been going on *for years*; and that all the other changes were of a far posterior date. The peritoneal inflammation agglutinating the abdominal viscera, though not recent, was, in all probability, much more so than that in the chest. The effusion of water into the right side of the thorax, was, unquestionably of recent formation; and had gradually increased during the attendance of the reporter. We all know how soon a lung will be diminished to a very small compass, when encroached upon by water in the chest. One morbid structure, however, which dissection disclosed in this case, may perhaps claim seniority over the enlargement of the heart. That was, the granulated texture and diminution of bulk in the liver. We think there can be little doubt that this morbid change was produced by the early and long continued habits of irregularity, not to say intemperance of a soldier's life. It is such a change as we not unfrequently see resulting from similar habits. But the question is, had this change of structure in the liver any thing to do with the organic disease of the heart? We think it is not at all improbable that the liver disease, attended as it must have been, with disordered function in the digestive organs generally, contributed originally to disturb the function of the heart, and ultimately its structure. But this was anterior to the illness which caused the patient's death, and had nothing to do with that event. Neither could any human sagacity have detected organic change in the liver during life. Its *function* was deranged, it is true, but so it often is, without any change of structure. The organic disease of the heart, in fine, produced the dropsical effusion in the chest—and this was the immediate cause of death. The adhesive inflammation in the abdomen was an accidental occurrence, and although its sequelæ occasioned much distress, they did not affect life.

2. CAN THE BLOOD BE THE SEAT OF THE DISEASE ?*

That the fluids, as well as the solids, do occasionally undergo alterations in a state of disease, is pretty generally admitted; but the question is, can the blood be the primary seat of diseases—or can a change in the condition of this fluid be entitled to the denomination of diseases? and can disordered function in various organs be the consequences of this change in the fluids? M. Segalas thinks that an answer in the affirmative may be safely given. Numerous experiments have now been made on animals, with the view of ascertaining this point, by different physiologists. The following suite of trials were confined to the effects of alcohol and nux vomica on dogs.

1. If a certain quantity of alcohol be thrown into the jugular vein of a dog—half an ounce, for example—the animal is instantly killed, and the blood is found very much changed, being grumous, and, in colour, resembling milk that is turned. The lungs are reddened, and firmer than natural.

2 If the alcohol be diluted by four or five parts of water, the animal soon falls down, in a state of complete intoxication, being motionless, insensible, and only exhibiting signs of life by slow breathing carried on by the abdominal muscles, and by a scarcely perceptible pulse.

3. When the quantity of alcohol is small, as for example, a drachm, the animal only staggers about for a few minutes, and soon after appears as if nothing had happened. This return to health takes place in proportion to the elimination of the alcohol, as is evident from its odour on the pulmonary exhalation.

4. The above experiment was several times repeated, and always with the same result. If the animal be watched, and the experiment repeated as soon as the pulmonary vapour ceases to exhale the odour of the alcohol, an ounce of this spirit may thus be passed through the veins of a dog, of 30 pounds weight, in the course of an hour.

5. The same quantity thrown at once into the veins, quickly suppresses the respiration, and the heart ceases to pulsate in the course of two or three minutes.

On examination of the body, no alteration can be perceived in the solids, with the exception of some increase of density in the lungs. But the blood was always found to be materially altered. It was not grumous, as after the injection of the pure alcohol; but it had a creamy appearance, and was more uniformly thickened.

Exp. 6. If the alcoholic injection be made into the bronchia, the inebriation takes place equally soon when introduced into the the veins, and the appearance of the blood is the same in both cases, but, in the former, a larger quantity of alcohol is necessary to induce these changes in the blood, and a longer time for its operation, than in the latter mode of experimenting.

7. Whether we divide the eighth pair of nerves, or leave them intact, injection of alcohol into the bronchia produces the symptoms of intoxication in the same time, and to the same degree.

8. Intoxication through the medium of the stomach, requires more alcohol, and much longer time for its operation, than when the fluid is thrown into the venous or respiratory vessels. The intoxication is also much more slow in being dissipated

9 The blood appears thickened after this kind of inebriation, even when the animal is killed by asphyxia.

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* Experiences relatives à cette question. "La sang peut-il être siège de Maladies? Memoire lu à l'Académie des Sciences, 21 Feb. 1826. Par Segalas D'Echapare. Archives, Septembre, 1826.

10. The effects of alcoholic injection in the stomach were the same, whether the pneumo-gastric nerves were divided or not, provided the œsophagus was tied to prevent vomiting.

11. Alcoholic injection into the cavity of the pleura, peritoneum, the bladder, and the subcutaneous cellular tissue, acted in the same manner; but with a quickness and intensity proportioned to the absorbing powers of the parts.

12. In these different cases, whether the stomach be extirpated or not, the effects of alcoholic injections are the same.

13. In proportion as the mass of blood was diminished by previous venesection, it required less alcohol to produce intoxication, and more time for the dissipation of its effects.

14. The injection of a good deal of water into the veins produces a different effect—intoxication then requires a greater quantity of alcohol, and a shorter time for dissipation.

15. The quantities of alcohol being equal, it requires a shorter time to produce intoxication, by the medium of the stomach, after a great loss of blood—and a longer time after much aqueous injection into the veins.

These facts, says our author, are in conformity with what we see in men habituated to alcoholic drinks, or to breathe an alcoholic atmosphere; and prove that the condition necessary for intoxication, is the presence of a certain quantity of alcohol in the blood.

They prove (*Exp.* 1.) THAT concentrated alcohol produces a chemical action on the blood in a living state. THAT diluted alcohol (*Exp.* 2, 6, 8, 11,) determines immediate inebriation, if injected into the veins or bronchia—and the same, with more or less rapidity, if injected into other parts. THAT the effects of alcohol injected elsewhere than into the veins, are in proportion to the intensity and celerity of the absorbing function of the part, and altogether independent of the nerves distributed on those parts, particularly of the nerves of the stomach. See *Exp.* 6, 7, 8, 10, 11, 12. THAT these effects are retarded or accelerated by such circumstances as restrain or favour absorption. THAT intoxication is dissipated at the time the alcohol is expelled from the circulation; and more or less quickly, according to the circumstances which are more or less favourable to exhalation. THAT the effects of alcohol are intense, not in proportion to the quantity brought in contact with the organs, but with the quantity absorbed into the blood. Finally, THAT extreme intoxication and death from intoxication coincide with a manifest alteration in the blood itself, and a slight alteration in the solids.

Is it then to be doubted that alcoholic intoxication is owing to the presence of this fluid in the blood, and that the phenomena which accompany it are occasioned by the abnormal action of the blood thus changed on the organs, and especially on the nervous system? What, in fact, are the phenomena of intoxication, but the expression, of an altered state of the blood—*the symptoms of a disease of the blood?*

These circumstances will explain some facts which were before inexplicable—such as the influence of oil in preventing the effects of alcohol—and that of ammonia and acetate of ammonia in dissipating those effects. Oil retards absorption, while ammonia and its acetate favour the elimination of alcohol from the circulation. Perhaps, too, these last-mentioned substances have some effect on the nervous system, or some power of neutralising the effects of alcohol on the blood.

Our author next proceeds to a suite of experiments with the alcoholic extract of nux vomica, in which, if we substitute the word tetanus for intoxication, we shall have the same results as in the first series of experi-

ments. In several of these experiments care was taken to innervate the whole, or certain parts of the body, by section of the spinal marrow, &c. in order to show that the action of the nux vomica on the muscles was determined by its presence in the blood, and not by its influence on the nervous system. Thus, for example, when the spinal marrow was divided in the dorsal or cervical regions, the poison injected or absorbed into the veins produced tetanic rigidity in the parts paralyzed less quickly, but more permanently than in the muscles which were not deprived of their nervous communication with the brain or spinal marrow.

The experiments here related, observes our author, authorize us to conclude, that tetanus produced by the nux vomica has, for the primary condition of its developement, the presence of the poison in the blood, and that the phenomena which accompany it, are owing to the abnormal action of this fluid on the nervous system.* Can it be then denied that these phenomena are the indices of an altered state of the blood?—*the symptoms of a disease of the blood?*"

These experiments, our author observes, explain, in some measure, the action of nux vomica on paralyzed limbs in man, and why its action is more permanent on the paralyzed muscles than on those which are in health. The communication of these last with the brain not being cut off, enables them sooner to shake off the influence of the poison.

There was one remarkable phenomenon appeared in these experiments which ought not to be passed over in silence, namely that when a moderate quantity of nux vomica was injected into the blood, the tetanic spasms take on a regular intermittent character, ceasing and re-appearing at stated periods. This is a very curious phenomenon, and, perhaps, it may one day help to explain the intermittent types of those fevers dependent on the introduction of a miasmal poison into the system.

3. REGENERATION OF SPHACELATED URETHRA.†

This case deserves to be ranked among the marvellous, and Dr. Brown, we hope, will excuse us if we appear somewhat sceptical on the present occasion.

Case. A man, 50 years of age, had evacuated his urine with considerable difficulty for two years, and during that period, was in the habit of passing "a *small* metallic sound into the urethra." On the 14th May, he was found labouring under violent inflammation of the scrotum, penis, and the whole of the hypogastrium, with swelling and tension along the line of the urethra. Nevertheless, the urine still continued to pass through the regular channel. The inflammation continued unmitigated till the 17th, when fluctuation was perceptible on the left side of the abdomen. An incision was made, and "a tea-cupful of abominably fetid pus discharged." On the 19th, the tumefaction had much subsided, though the discharge was profuse, and extensive sloughs had formed. On the 20th, the greater part of his urine flowed through the wound—and in the evening, it all came through this channel. On the 23d, a large slough was drawn out from the wound, four inches in length, "comprising full three inches of the urethra." This extensive slough is preserved in spirits, and a drawing of it is given.

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* The experimenter means, of course, the action of the poisoned blood on the *nerves of the muscles themselves*, as well as on the general nervous system.—*Rev.*

† Dr. Brown. Ed. Jour. Med. Science, No. 4.

An examination of the drawing does not lead us to believe that it comprises any portion of the urethra; and a perusal of the subsequent history of the case confirms our scepticism. On the 5th June, or 12 days after this event, the man emptied his bladder by a full stream through the urethra. On the 23d of the same month the man was walking about, averring that—"he made water as well as ever he did in his life, none having passed through the wound in the abdomen *since the 5th instant.*"

The above case needs little comment. The man ruptured the membrane of the urethra by means of his "small metallic sound." Some urine was extravasated, and caused the suppuration, and formation of horribly fetid pus. A slough was drawn out from this wound, with a canal in it, or something like a canal, which has been mistaken for the urethra. Had it really comprised "three inches" of that canal, the patient would not have been walking about in three or four weeks, "making water as well as ever he did in his life." The test of miracles is the experience of man; and we apprehend that the experience of man is against "the regeneration of a urethra" in the time and manner above-mentioned.

4. SOME RARE CASES IN SURGERY, BY PROF. SCARPA.*

Although not very partial to extraordinary cases either in physic or surgery, yet all such cases are worthy of record, since they may prove landmarks or beacons, on future occasions, where we are in doubts and difficulties.

Enormous Collection of Milk in the Mamma.

Case 1. A young female peasant, of small stature, but robust constitution, perceived, ten days after a second accouchement, a considerable swelling in the left arm-pit not preceded by any inflammatory symptom, or pain. She continued to suckle her infant from both breasts—but more especially from the left, in the hope of dissipating the swelling; but the effect was quite contrary to her expectations, for the flow of milk from that breast daily diminished, while the tumour in the axilla increased. This tumefaction gradually extended to the mamma, and at last occupied the whole of it. In the course of two months the breast got to such a size that it measured 34 inches in circumference, and, when sitting, the mamma rested on the thigh of that side. The skin covering this tumour presented no particular alteration in appearance, except that it was rather tense and shining, the subcutaneous veins being dilated. Professor Scarpa thrust a middle-sized trocar into the tumour near the axilla, where the integuments appeared thin. A flow of pure milk followed, and ten pints were drawn off in a continued stream. The celebrated Dr. Frank was present at this operation, and was not a little astonished. When the milk was evacuated, the mamma was scarcely more voluminous than the other. The wound made by the trocar was enlarged, and a tent introduced, for the purpose of facilitating any subsequent discharge. The milk was sent to M. Scopoli, professor of chemistry, and its analysis showed that, notwithstanding the long sojourn of the fluid in the breast, it differed in none of its physical or chemical properties from the recently secreted milk of a female.

The obliteration of the cavity where the milk was lodged could not be effected till a seton was established there. The cure was ultimately complete.

* Opusculi di Chirurgia, vol. ii.

A Foreign Body in the Rectum.

Case 2. A young peasant habitually constipated, experienced, at one time, so much inconvenience, that he introduced into the rectum a reed-stalk, for the purpose of mechanically assisting the evacuation of the hardened fæces. It had the desired effect; but in the second introduction, the reed-stalk escaped from his grasp, and went up beyond his reach. All the straining and violent efforts which he made to eject the foreign body were in vain, and he was soon in great agony. He was carried the next day to the hospital, where the surgeon on duty made some fruitless attempts to extract the offending body. He then gave him a purgative. The succeeding day Scarpa saw the patient, and, on careful examination of the abdomen, discovered the piece of reed in the *right* iliac region, where the least pressure occasioned great pain. In the evening of the same day the extremity of the reed was found to have stretched over towards the *left* iliac region, showing that the foreign body had a tendency to pass up the colon.* In the course of the night it got into the sigmoid flexure, and by the next day, when Scarpa made his rounds, the reed had got into the tranverse arch of the colon, and was lodged just under the ensiform cartilage of the sternum. Scarpa thought it would now soon reach the cæcum; but by five o'clock in the afternoon it had retrograded to the hollow of the left ilium, where it was very prominent. Scarpa now placed the patient in the position for lithotomy, and introduced a very flexible and gum-elastic catheter, the size of the ring finger, till its point reached the sigmoid flexure of the colon. The wire of the catheter was then introduced to keep it steady. By means of the fingers of one hand on the abdomen, and by manœuvring the point of the cathether with the other, he managed to bring the reed into a position parallel with the line of the gut, whereas it appeared to him to be lodging obliquely across the passage. By thus keeping it in a proper position, and pressing gently on its upper extremity, through the parietes of the abdomen, he enticed the reed down within reach of the finger in the rectum, and then easily extracted it with a pair of forceps.

The Professor remarks that this case leaves no doubt of the *anti-peristaltic* motion of the colon—a fact which indeed has long ago been proved by the disappearance of injections from that gut, and by their being vomited by the mouth.

The above case bears considerable similitude to the case related some 17 years ago by Mr. Thomas, of Leicester Place, and with which most of our readers, perhaps, are acquainted. The patient was a gentleman habitually costive, and who was in the habit of daily introducing a piece of flexible cane, the size of a finger, into the rectum, and there leaving it till the nisus for evacuation took place. One day, however, it escaped out of reach. Nevertheless the motions passed regularly, and it was seven days after the accident, when Mr. Thomas saw him. He was then labouring under symptoms of abdominal inflammation, and was in great distress. No part of the cane could be felt per anum, but one end of it was very evident, projecting midway betweeg the ileum and umbilicus on the *right side*. The part was extremely sensible. An anodyne enema was first administered, and two hours afterwards Mr. Thomas was enabled gradually to introduce

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* There seems to be some obscurity here. One would have expected that the first appearance of a foreign body would have been in the *left* iliac region, in its way to and through the sigmoid flexure of the colon. It is probable, however, in this case, that the rectum lay more towards the right than the left side of the sacrum.

the hand into the rectum, and in 20 minutes extracted the cane. It was nine inches in length and one of its extremities very ragged and uneven.

The venerable professor relates in the same volume, two cases of sanguineous tumours removed, one from the upper lip, the other from the palatine arch. The former was a nævus maternus, the latter had been growing for a great many years. Considerable hæmorrhage succeeded the ablation of these tumours, but was arrested by pressure and styptic applications.

5. MODIFICATION OF SORE THROAT IN CHILDREN.*

Dr. Hamilton Jun. had thrown out some hints respecting this modification of sore throat in the last edition of his work, on the Management of Children, in the following words:—

"'There is a very dangerous, but fortunately rare, modification of sore throat, which begins in the form of a whitish spot, like that of thrush, (though more definite in its shape, being round or oval,) on one or both tonsils, unaccompanied at first by fever, and attended with only a trifling degree of uneasiness in swallowing. By and by this spot enlarges, its edges become of a florid colour; fever steals on; and the act of swallowing grows painful. A slough gradually forms, with evident ulceration of its edges; the fever increases; and head-ache and restlessness supervene.

"'The partial separation of the slough, together with the rosy colour of the edges of the ulcer, with the moderate degree of fever for some days, promise a favourable issue. But very unexpectedly slowness of breathing, without either difficulty or wheezing, takes place, with excessive and sudden sinking of the living powers; and it generally happens that within a day from this change, the fatal event takes place. The breathing at first falls to eighteen respirations in the minute; then to sixteen; to twelve; and finally to ten or eight. Sometimes, with the sloughing, the tonsil swells; and in some cases, both tonsils are affected.

"'Hitherto, with one exception, this disease has proved mortal in every case in which the author has been consulted; and he considers the slow breathing to be a sure symptom of the fatal termination.

"With respect to the nature of the disease, his experience is too limited to enable him to give a decided opinion. He has repeatedly known two individuals of the same family attacked in succession with the disease; but he does not feel warranted in pronouncing it to be infectious.

"'It is with feelings of sincere regret, that he has to state, that no mode of treatment yet discovered, seems to have any influence in checking the progress of this disease. The most powerful local applications, such as stimulating gargles, the use of caustic, &c. and all the ordinary means of supporting the strength, have, in the cases to which the author was called, been pursued with much anxiety and activity, without any benefit. The operation of opening the windpipe, was, in one interesting case, where, from the swelling of both tonsils, there was apparently a mechanical obstruction to the breathing, had recourse to without any avail.'"

Further experience has taught Dr. H. that two other symptoms occasion-

* Dr. James Hamilton Jun. Ed. Journ. Med. Science, No. 4.

ally attend this fatal disease—offensive fetor of breath—sudden occurrence of cynanche trachealis. The former symptom has generally appeared from six to nine days after the disease had commenced: but the latter symptom has taken place earlier, viz. before the sixth day.

Our author concludes, therefore, that this curious affection proves fatal in two ways—by exciting cynanche trachealis—and, by inducing slow respiration and sinking of the vital powers. "In repeated instances, these two different terminations have occurred in the same family." The modus operandi of the former termination, is obvious enough—and has been fully delineated in our review of Dr. Bretonneau's work, in our last number; bnt the rationale of the slow breathing is far from easy, nor are we satisfied with the explanation which the talented author has attempted, namely, the secretion from the ulcer in the throat of a morbid poison, "which may act by paralyzing or otherwise influencing the par vagum, or the branches of the eighth pair of nerves." In the fatal cases of cynanche maligna, where croup does not precede death, our author thinks it probable that the sinking of the living powers may be owing to absorption of the matter of the ulcer in the throat. But admitting this, why does not the slow breathing take place?

Be this as it may, Dr. Hamilton has adduced some curious and interesting cases, with the view of illustrating the subject on which he speculates. His attention was first drawn to the absorption of morbid poisons by cases of polypus uteri. In many such cases, there are symptoms of broken health, such as prostration of strength, and œdematous swellings, although there may have been no hæmorrhage, but merely a trifling ichorous discharge per vaginam. On the removal of the polypus the discharge has generally ceased, and health become restored. Our author was at a loss to account for these circumstances, but at last a case occurred, where the medical attendants were induced to delay the operation, and where the patient suddenly sunk a few days after the consultation. All the viscera were sound, and the body would have conveyed the idea of the patient having been carried off by some accident in the midst of health. A small ulceration, however, was discovered surrounding the peduncle, by which the polypus was attached to the uterus, "and it was concluded that the matter of this ulceration had been absorbed, and had acted as an animal poison." When we look around the surgical wards of an hospital, and observe the variety of ulcers that discharge all kinds of matter—when we see ulcerations of the stomach and intestines continuing for years, and where their discharges must pass along with the chyme through the tract of the intestines;—and all these without any thing like proofs of the dangerous effects of absorption, we cannot but regard Dr. Hamilton's mode of accounting for the sudden death of his patient as any thing but satisfactory. The next case is still less so. A stout woman was brought into the Royal Infirmary, in consequence of the sudden protrusion of a double-headed polypous excrescence of the uterus. A ligature was applied, and the tumour dropped off in the course of four or five days. Forty-eight hours after this, peritoneal inflammation was developed, and she died in two days. On dissection, no connexion could be traced between the uterus, (which, however, was thickened and enlarged,) and the peritoneal inflammation. So then, the removal of a polypus by ligature, and a succeeding peritoneal inflammation, are to be considered as illustrations of the absorption of a morbid poison into the system! We do not deem it necessary to make any remark upon this case. Valeat quantum valere debet.

Several years afterwards another case occurred, of which the following are the particulars. An individual, aged 45, of delicate constitution, was observed to have a polypous excrescence of the uterus, and a ligature was applied. The tumour dropped off on the fourth day The next day she took some castor oil, which, not operating, was followed by some infusion of senna. Griping and pain in the belly succeeded—and the medical attendant was

summoned. Twenty ounces of blood were abstracted. "*Oppressed breathing, and great rapidity and feebleness of the pulse succeeded, and she sunk within a few hours.*" No dissection took place; but our author thinks that it is "highly probable" the death was occasioned by the absorption of a morbid poison. Since this is merely matter of opinion, we may venture to give ours----namely, that the disease, or rather *disorder*, was *intestinal irritation*----and that the abstraction of twenty ounces of blood from a delicate female, under such a condition, was far more likely to be the cause of death than the absorption of a morbid poison. A dose of laudanum and carbonate of ammonia would, in our humble opinion, have been a much more efficacious remedy than venesection.

Dr. Hamilton adduces the cases of colliquative diarrhœa which so often occur after the opening of large abscesses about the hip-joint. We do not deny that pus may be absorbed, in such sases; but the fact is, that any great local irritation will often be transferred to the bowels, and diarrhœa is generally found to close the scene in most diseases.

But we must hasten to a close. Dr. Hamilton, finding that neither the application of leeches, the exhibition of purgatives, the application of blisters, nor the use of topical stimulants, as gargles, nitrate of silver, or even scarifications, were at all beneficial in lessening the extent of the local inflammation, in the throat affection above-described, resolved to take the earliest opportunity of endeavouring to lessen the amount of the diseased secretion. An opportunity at length occurred. On the 27th June, 1826, he was sent for to visit a boy aged six years, labouring under a modification of sore throat, which appeared to be of singular character. This was the third child in the family that had become affected with the disease. The first was a girl, nine years old, now sinking. In ten days after her attack, a little brother, four years old, was seized with the same symptoms, on which cynanche trachealis supervened, and proved fatal. When the state of the third patient was examined, there was found a slough on each tonsil, with a slight swelling of the velum, but no fever. He had only complained the preceding morning, and active measures had been pursued, such as purgation and leeching. In order to lessen the discharge, the sulphate of quinine was ordered in as large doses as the little patient could bear; but the medicine could not be got down in sufficient quantities. The ulceration was increasing, and fever was stealing on. Eight grains of the superacetate of lead, with 40 drops of laudanum, were mixed with eight ounces of rose water, and half an ounce was given every three hours. A solution of the same substance was also employed as a gargle. A dose of castor oil was ordered every second morning: under this treatment the sloughs gradually contracted, and the swelling of the velum pendulum progressively decreased, in the course of which it was discovered that ulceration had extended over the pharynx behind the velum, and the cure was completed on the 16th July. The whole quantity of superacetate taken was twenty-four grains.

From the cases which have fallen under our author's notice, he is inclined to believe that the disease is infectious. Dr. Hamilton concludes with some observations on the internal use of superacetate of lead, against which there seems to be a most unfounded prejudice and dread in the northern part of the union. No such prejudice exists among the "Southrons."

After he had written the paper, Dr. Abercrombie put into Dr. H's hands some account of Bretonneau's work on *Diphtherite*, most likely from this Journal, for we do not see that any other has yet noticed it. Dr. H. insists that he could not be deceived respecting the existence of ulceration in the

this side were enlarged greatly. The semilunar valves at the origin both of the aorta and pulmonary artery, were unaltered; but the origin of the aorta itself was rather widened, so that the semilunar valves, at this part, could not have completely shut the root of the aorta, when the ventricle was in a state of diastole. Scales of bone covered the root of the aorta, which was only enlarged for about the space of two inches from the heart. The vessel, from that point, possessed its natural calibre. The heart was computed to weigh about two and a half, or three pounds.

In the abdomen, marks of extensive chronic peritonitis every where existed. The convolutions of the intestines were glued together in many places, and to the reflected peritoneum. The stomach was glued to the liver and to all the contiguous parts. The liver itself was small and condensed, and its peritoneal covering whitened with coagulable lymph. Its structure was granular-looking, and a large white tubercle, an inch and a half in diameter, was cut through, in making an incision into its parenchymatous structure. The gall-bladder was so agglutinated to the neighbouring parts, especially to the colon and stomach, that we had some difficulty in bringing it into view. It contained a number of small angular calculi, as black as jet. They changed colour, however, on being heated, and were evidently the common biliary calculi. The coats of the gall-bladder were much thickened: but the state of the ducts could not be properly ascertained amid the mass of adhesive inflammation in which they were entangled. The stomach was very large, and its mucous membrane extensively discoloured, nearly black in many places, and a considerable portion softened and quite abraded. We had not time to examine the mucous membrane of the intestines. There was nothing else remarkable.

We think the foregoing case is interesting, as verifying the diagnosis which was given some months previously, by all the gentlemen, in the presence of several [illegible] gentlemen, especially Dr. [illegible], Dr. [illegible], Dr. Watson, Mr. Lawrie, and others. This diagnosis, as regarded the organic disease of the heart and the effusion in the chest, the two principal features of the disease, could not have been given, with anything like confidence, except through the aid of percussion and auscultation. The action of the heart was perfectly regular, and the pulse rather small, so that the [illegible] the aortic valves existed to a great [illegible] in the region of the heart. In fact, the attention was directed to symptoms [illegible] in the heart, except the pain which the disease occasioned. The [illegible] and evidently an irregular kind, as a sedative, and [illegible] [illegible] He [illegible] the [illegible] of his complaint in November 1833, when he had been attending [illegible] several weeks previously. [illegible] [illegible] [illegible]

but was at last driven to the attempt on his child's life, in which he fortunately failed.

Vilermé related the case of a woman who, immediately after hearing the account of an assassination, was tormented, for three nights, with the desire to destroy her daughter, a girl 7 years of age. She had even secreted a weapon for the execution of her horrible purpose!

M. Bally observed that these cases have happened in all periods, nor did he believe that they were more common now than in former times; but only that they were more noticed. This does not appear clear to us, for reasons which will be stated presently.

M. Barbier asked the Society if any of them had seen such cases without some physical ailment? For his own part, he firmly believed that corporeal disorder was an indispensable preliminary condition—or rather predisposition. He knows a lady who is occasionally affected with monomania—"*but only when her stomach is disordered*"—"qui n'a cette monomanie que depuis qu'elle souffre de l'estomac."

M. Esquirol was quite of this opinion. All those whom he has seen affected with monomania were melancholics, and subject to stomach disorders.

M. Costel observed that all these facts, singular as they might appear, were explicable by a change in the sensibility—in short, on the principle of *morbid sensibility*.* In this condition, *example* has a most powerful influence. In illustration of this he mentioned the remarkable fact that, at the HÔTEL DES INVALIDS, a soldier having hanged himself on a post, his example was followed, in a very short time, by twelve other invalids—and that by removing this fatal post, the suicidal epidemic was put an end to.

M. Marc, in conclusion, descanted on the bad effects of giving publicity to the acts of suicide, infanticide, and homicide, now daily and hourly meeting the eyes of people in a nervous or melancholic condition, and leading to a multiplication of those acts themselves.

We have no doubt that this is one cause of the more frequent occurrence of these catastrophies now than formerly. But we believe that, in the progress of civilization, as knowledge is increased, and the processes by which it is acquired multiplied, so will the causes of suicide and infanticide, but especially of the *former*. The mind will not be worked in disproportion to the body, without injury to the nervous system, and consequent injury to the body generally. This is the condition into which high civilization is leading man. It may have its advantages. That is quite an other consideration:—but these are some of its evils. We believe, therefore, contrary to M. Bally, that the accidents above-detailed are on the increase among us in the present generation.

7. HYOSCYAMUS AND CAMPHOR.

Some further communications have been made to the Ed. Journal of Medical Science, respecting the above combination in affections of the bladder and urethra, by Mr. B. Bell. Camphor has long been known to have a peculiarly sedative effect on the urinary organs, and hyoscyamus is every day coming more and more into use, as a substitute for opium, in almost every kind of irritation and irritability. Mr. Bell remarks that

* Dr. Johnson has investigated this point at some length in his Essay on "Morbid Sensibility of the Stomach and Bowels."

camphor must be given in large doses, and frequently repeated—nor can we be assured that the system is under its influence, until the pulse be more or less affected—or even a slight degree of vertigo produced. Mr. Bell has found it necessary, in a few cases, to continue the employment of camphor, where the chordée, ardor urinæ, and irritable bladder, were in a high degree, even after the vertigo had taken place. But such is only necessary in extreme cases. Camphor, when given alone, is very apt to occasion nausea, heart-burn, and sometimes tremors. An anodyne, therefore, which does not occasion constipation, is a necessary adjunct. Hyoscyamus has been found to answer the purpose well, especially in the form of extract. The following are the formulæ which Mr. Bell generally uses.

1. R. Gum. camphoræ, gr. iij.
   Ext. hyoscyami, gr. ij. Misce ft pilula.
2. R. Gum. camphoræ,
   Ext. hyoscyami, aa gr. ij.
   Pulv. capsici, gr. i. Ft pilula.

No. 3 is a grain of ipecacuan instead of the capsicum. In general we find that Mr. Bell gives the above quantity, every third, fourth, or 6th hour, according to circumstances. The object is, to allay local irritation, without occasioning constitutional disturbance. In many instances the discharge of gonorrhœa ceases during the exhibition of the medicine, but this is not the object of the remedy—that object being to allay the distressing ardor urinæ and chordée.

8. CHERRY-STONE IN THE BRONCHIA.

Dr. Webster has related a case of this kind in the 5th No. of the *Med. and Phys. Journal*. A lad, 14 years of age, swallowed a broken cherry-stone, which slipped into the trachea, and produced a violent fit of coughing, with dyspnœa, and sense of suffocation. Twelve days after the accident he came under Dr. W.'s care, the above-mentioned symptoms still continuing without intermission, and with the addition of pain under the sternum. The stethoscope showed the foreign body in the left bronchium, at the bifurcation of the trachea, thereby almost entirely obstructing the air from passing into the left lung. "On further investigation, it was also ascertained that the lung was sound, *though collapsed*. By percussion on the left side of the chest, a *deaf sound* was perceived, but in the right cavity every thing seemed healthy."* The patient had only expectorated some frothy mucus since the accident—pulse 120, small and sharp—great thirst—cough violent. Leeches, blister, antimonials—low diet,—absolute repose. He was relieved by these means. On the 16th day he was again bled, blistered, and the same medicines continued. These measures were repeated afterwards. From this period till the 68th day, the symptoms varied but little, and he was reduced to a state of extreme exhaustion. On the 30th day, it was ascertained by the stethoscope, that the air permeated more freely the left lung, particularly the upper portion. On the 68th day above-mentioned, he coughed up a large quantity of fetid pus, in which was found the cherry-stone. From this

* There must surely be some mistake here. If the lung was collapsed, air must have supplied its place, or water. In the former case, the sound would have been the reverse of *deaf*. We should say that the lung was *gorged*, not collapsed. This state would explain the phenomena. How was the cherry-stone discovered by the stethoscope? We apprehend that Laennec himself would not have been able to detect such a small body in the lungs.

time the patient gradually recovered, and was convalescent by the ninetieth day.

Dr. Gregory, Mr. Lawrence, Mr. Wardrop, Mr. Bacot, and others, decided that *tracheotomy* should not be performed, unless the symptoms of suffocation became very urgent. We are at a loss to know what *tracheotomy* would have done for a case where the body was lodged in one of the bronchia. *Bronchotomy*, in the strict sense of the word, could alone have given the means of removing the cherry-stone, and this must have been done by opening the chest. He would have been a bold operator indeed who would have undertaken such a step! The remedy would probably have been at least as bad as the disease.

9. TREATMENT OF INTERMITTENT.*

Agues are not now nearly so prevalent in the fenny parts of Lincoln and Essex as formerly. The drainage of the lands has no doubt been the main cause of the amelioration; but, still ague prevails, and this is owing, Dr. Brown thinks, "to the mixture of salt and fresh water, an ascertained source of infectious miasmata." This, he informs us, arises from two evident causes—soakage, and the influx of the sea at the flowing tide into fresh water channels. The prevalence of intermittents and remittents during the last summer have furnished Dr. Brown with materials for the present Essay, of which we shall lay some of the particulars before our readers.

The principal object of the Essay, as the title imports, is the art of *repelling* the paroxysm. For this purpose, many means, medicinal, mental, and even mechanical, have been employed, as brandy, laudanum, emetics—ligatures, frictions, exercise—amulets and charms. All these have been occasionally successful, but few or none of them are now in general use. The interval between the paroxysms is almost universally waited for, in order to exhibit tonics, more especially bark or arsenic for the *prevention* of the succeeding attacks. "The practice," says Dr. Brown, "of waiting for the paroxysm, and exercising powers to arrest it in its progress, on the first approach, has never been established." Dr. B. has known an ague resist the sulphate of quinine, with great obstinacy, for several weeks, and an example of this kind has induced our author to participate in the fears of Dr. Paris, "that evil, not good, would be the result of the new remedies." In this fear we do not participate; for, if any evil is to arise from arresting the progress of an ague, it is far more likely to result from clogging the stomach with a quarter of a pound of the ligneous part of bark, than from the exhibition of twenty or thirty grains of the sulphate of quinine.

Dr. B. does not come forward, however, to depreciate this last medicine, but with the view of "altering the manner of its exhibition, and promoting its operation by the assistance of others, by which its action becomes more uniform and certain." In March, 1824, Dr. B. was himself the subject of an intermittent, of a tertian character, and with paroxysms unusually severe. He had been taking the sulphate of quinine, but still he had three attacks, and he looked forward with anxiety to arrest the fourth. For this purpose, he determined to alter his plan. Having taken a laxative medicine, and the attack showing indications of approach, at one o'clock, the usual period, he commenced, by taking only two grains of the quinine, intending to

* A Treatise on repelling the Paroxysm of Intermittent Fevers; illustrated with Cases. By J. Brown, M.D. Boston, 1826, pp. 60. Underwoods. 1826.

follow it up with a much larger dose antecedent to the rigor, if the above quantity were not sufficient. "But, in a very few minutes, its effects were apparent. The shrinking of the surface, the dejection of spirits, the painful sensibility to cold, head-ache, and thirst, and all unpleasant feelings, progressively subsided." From a dose so small, such influence over symptoms so formidable could hardly have been expected; and a temporary disappointment did succeed. In half an hour the attack returned, and again the same dose was repeated.

"Its influence over the rising symptoms became sensibly felt in a few minutes—the pulse became more full and distinct—the respiration easy,—the cutis recovered its natural temperature, and in eleven minutes, not one unpleasant feeling remained. This state, like that produced by the first dose, continued but a short time; in thirty-five minutes, the symptoms returned again in the same order as before, and a third time I repeated the quinine, in a dose of two grains; and now felt some confidence in its powers; and a hope that, by a steady perseverance in exercising this ascendency I had gained over the approaching paroxysm, I should continue to repel, and ultimately to subdue it altogether. This was effected after the fifth dose, between which and the fourth, there had been an interval of an hour and a half, leaving a slight glow and moisture on the surface." 21.

Our author now proceeds to the narration of 32 cases of intermittent cured in the above manner, with more or less celerity. These we need not detail. A single case, the first on the list, will be a sufficient specimen of the practice pursued.

"*Case* 1. S. T. aged 17 years. This patient came to me the day following the fifth paroxysm. The ague was of the tertian type. She had been subject to habitual constipation of the bowels, and, under her present affection, it had become of more serious inconvenience to her. I therefore prescribed an active purgative to be taken at intervals, until the bowels were well acted upon, by which she got rid of several dark and offensive dejections.

"At the approach of the fit, she took the sulphate of quinine, beginning with the first dose as soon as she perceived the paroxysm coming on: an hour had elapsed before it became necessary to take another; and, at the expiration of a little longer interval than the first, she took the third and last:—the fit subsided, and the ague altogether left her. She took in all only six grains of the quinine." 22.

Active purgation appears to have been an indispensible preliminary to the mode of treatment; for, in one or two cases where this was omitted, the plan failed.

Dr. Brown's present opinion respecting the quinine forms a singular contrast with that which he has quoted from Dr. Paris, and which we have noticed at the beginning of this article.

"If any drug, now in use, is entitled to be considered *as a remedy fit only for kings*, the sulphate of quinine has a fair claim to the distinction." 60.

Upon the merits of the plan recommended and practised by Dr. Brown, we can pass no opinion, not having given it a trial. But we have now put our readers in possession of the facts, and they can easily test them in their own practice.

10. ENCEPHALIC PHLEBITIS.

The following curious case occurred in the practice of M. Gendrin and Dr. Leveque-Lasource, and is detailed in the REVUE MEDICALE for April, 1826.

Case. Madame M——, aged 22 years, of good constitution, was safely delivered of her third child by Dr. Leveque-Lasource. She was in good health during pregnancy, but had a presentiment that she would not survive her accouchement. She did not suckle her infant. The doctor remarked that a little bouillie occasioned some febrile movement in the system. On the 7th day after delivery, while drawing her nipples with a glass, some blood issued, and frightened the patient very much. She had evinced, for a few days previously, but little regard for her infant. She fainted at the sight of the blood, and, on recovering, complained of cephalalgia of the left side. This pain was not diminished by two applications of leeches. On the 9th day, there was some difficulty of breathing, with pain in the side, which gave way to local bleeding. But the cephalalgia continued. The secretion of milk and of lochia had ceased. 10*th day.* A new moral commotion, from the fire having caught the curtains. The head-ache still continued, in spite of leechings. 17*th day.* Increase of head-ache, with pain in the left ear. Some symptoms of pneumonia requiring leeches. Sudden loss of power in the right arm, with numbness of the left leg. 18*th day.* The paralytic symptoms are increased—the tongue is embarrassed. 19*th day.* The paralysis augmenting—a large detraction of blood, local and general, which was cupped and buffed. This evening (1st Feb. 1826) M. Gendrin and M. Landré-Beauvais joined in consultation. The pupils were but little obedient to the light—tongue moist, but could not be pushed out—right arm completely insensible and motionless, but without rigidity—right lower extremity in nearly the same state—incontinence of urine—she appeared to comprehend, but could only say yes and no—sight and hearing undiminished—skin moist—pulse from 90 to 96, full and resisting. The patient indicated much suffering in the left side of the head. Blister—leeches to the groins. 2*d. Feb.* A fit of great agitation came on to-day, with entire loss of speech, the pulse quickening to 136 pulsations, with some subsultus tendinum. Leeches to the head—cold applications—sinapisms to the extremities—twenty-four grains of calomel in six doses. 3*d.* The symptoms evidently more favourable—paralysis diminished—pulse slower and softer—*same remedies as yesterday.*—4*th.* There were convulsive movements of the voluntary muscles, and other bad symptoms, which went on increasing till the 8th February, when death closed the scene. This event took place on the 26th day after accouchement. 17th from the commencement of the cephalalgia, and 9th day of the paralysis.

Dissection. This was not accomplished till after exhumation, on the fourth day from the patient's decease. A considerable degree of decomposition now obtained. On removing the skull-cap, it was observed that the middle cerebral vein of the right side was very much enlarged and tortuous as it approached the falx, where it opened into the superior longitudinal sinus. It was the size of a writing pen. They found it filled with a puriform substance of a yellow colour. In the tract of this vein the arachnoid membrane was slightly opaque. The corresponding vein on the left side was in the same state. The whole of the superior longitudinal sinus itself was converted into a diseased mass which it would be difficult to describe, but which was infiltrated in many places with yellow purulent matter. There was organic disease to a vast extent in various other parts of the brain. Nothing remarkable in the other viscera of the body.

11. MR. CHEVALIER ON BELLADONNA.*

Mr. Bayley, of Harwich, drew the attention of the Profession to the em-

* Mr. Chevalier Med. and Phys. Journal, No. 5.

ployment of belladonna, many years ago, in cases of tic douloureux, and other painful affections; and, more recently, Mr. Blackett has published some interesting papers on the external employment of this medicine.

Mr Chevalier has now stated his experience of the efficacy of belladonna externally employed, in a number of complaints, all, however, agreeing in one particular—pain or morbid irritability. The first case in which he tried the belladonna was that of a strictnre, attended with excessive irritability of the urethra. The extract, at first mixed with opium, and afterwards pure, was introduced on a bougie, and the morbid sensibility was soon reduced. In scrofulous glands, Mr. C. has applied the belladonna ointment (equal parts of the extract and of some other ointment) with striking advantage. In many cases of inflamed periosteum, venereal nodes, scrofulous diseases of the bones and joints, the extract of belladonna has proved a soothing application. In one case where a tumour had formed on the back of the hand, as large as half an orange, and where the hand was condemned to amputation, the swelling dispersed in less than ten weeks, under the belladonna plaster first, and ultimately the pure extract. In the case of a boy, whose knee was so much diseased that amputation was recommended, but not submitted to—where the knee-joint was imperfectly anchylosed, the condyles enlarged, and the capsular ligament distended with fluid, the belladonna plaster (after the severity of the pyrexial symptoms was abated by proper local and general means) was employed, and, under its use, the joint diminished in size, the boy's health improved—and, by the use of splints and other mechanical means, the joint was brought nearly into a right line. In cutaneous affections, this remedy has proved very useful in our author's hands. Erysipelas, cancers, inflammatory and spasmodic affections of the chest, have all been benefited by the belladonna plaster. Tooth-ache, rheumatism, even of the acute kind, and many other painful affections, have been relieved by this narcotic application in the hands of Mr. Chevalier. In the cases of between two and three hundred persons, in private practice, and in the Westminster Dispensary, there were very few in which the remedy failed to do good—"none in which it appears to have done harm." This is very grateful intelligence to those afflicted with pain; but, like the account of all other favourite remedies, it must be taken *cum grano salis*. There can be no doubt that belladonna is a powerful sedative, and that it is more effectual than almost any other in reducing morbid sensibility of parts, and morbid contractility of the muscular fibre. It may, therefore, be more frequently used than it is, in cases of pain, irritation, and rigidity. On the Continent it has been much employed, especially by Madame La Chapelle, as an application to the os uteri, where that muscular ring continued too long contracted after labour pains had come on. In this country we believe it is seldom used for this purpose, and we have heard it objected to by an eminent accoucheur as dangerous, lest the paralyzing influence of the belladonna should extend farther than was intended, and render torpid the muscular fibres of the uterus itself. We know not whether this objection be well or ill founded.

12. ON COMPRESSION IN POISONED WOUNDS.

Dr. Bouillaud has been experimenting on the above subject, and has laid the results before the Academy of Medicine, and also before the public, in the September No. of the ARCHIVES GENERALES.

Dr. B. agrees with Dr. Barry, that we have no evidence of the agency of poisons through the medium of the nervous system, and that, if absorption can be prevented, the animal may be considered safe. The action of the cupping-glass is effected, of course, through the agency of pressure on the

outside, and the removal of pressure on the inside of the glass; and Dr. B. was led to inquire whether simple pressure on a poisoned wound might not produce the same effects as the cupping-glass---and, also, whether a ligature applied above the wound might not have a similar effect. We shall state a few of the experiments made to determine these points.

1*st Ex.* At 14 minutes past 11 o'clock, he introduced three grains of strichnine into the cellular tissue of a rabbit's thigh, a ligature being placed above the wound. Seventeen minutes afterwards, the animal presented no symptom of poisoning; but at the expiration of 21 minutes, convulsions and cries manifested themselves. The thigh was then grasped very firmly with the hand at the place where the poison had been inserted, and soon the above symptoms of poisoning disappeared, and the rabbit tried to escape. During the 25 succeeding minutes, the manual pressure being continued, no sign of convulsions appeared. At 2 minutes after 12, the pressure was suspended, and, in six minutes afterwards, tetanic convulsions took place, which again ceased when the pressure was renewed, either by the hand or a cupping-glass strongly pressed on the part, without any exhaustion of the air. A slight diminution of the pressure of the glass was sufficient to renew the convulsions, and *vice versa*. At 22 minutes after 12, the compression was definitively suspended; and, in order to spare the animal any farther sufferings, some Prussic acid was dropped into one of its eyes, and it quickly expired.

Exp. 2. At 22 minutes past 11, Dr. B. introduced three grains of strichnine into the thigh of an adult rabbit. In eight minutes, cries and convulsions, with rigidity of the members, manifested themselves. The part was then strongly grasped with the hand, and almost immediately the cries and convulsions ceased. The compression was suspended, and again the convulsions returned. A cupping glass was then strongly pressed on the part, without exhaustion, and the symptoms of poisoning were quickly arrested. The cupping glass was removed, the convulsions returned, and so on. Pressure with the hand had the same effect. The rabbit was set free, having first washed the wound, but it soon died. Nine experiments are detailed, but all with the same results. These results are, we confess, very curious, if they are faithfully related, which we have no reason to doubt. From them it would appear, that the best plan in cases of poisoning, say, for instance, the bite of a mad animal, would be, to apply a ligature as soon as possible above the wound, and also the exhausted cupping-glass to the wound. Leeches might also be applied in all directions below the ligature, by which means the poison would be extracted, and any blood which might happen to be contaminated by that poison.

Reflecting on the above experiments, we are at a loss to account for the manner in which simple pressure relieves the symptoms of poisoning when they have once occurred, and that, too, in so sudden a manner as is here represented. If the experiments be correct and faithful, it would really appear to us, that the explanation of this sudden relief is more easily furnished by the nervous, than by the vascular or absorbent systems. Strong pressure on the wound might deaden the sensibility of the nerves there, and thus take off, for a time, the local irritation of the strichnine, the cause of the convulsions. This, of course, is reasoning on the possibility of poisons acting through the medium of the nerves—and when we consider the rapidity with which some animal poisons act—as that of the cobra de capello, &c. we are almost irresistibly led to believe in the instrumentality of the nerves, on some occasions at least. We leave it to physiologists to determine whether the above experiments of M. Bouillaud be in favour of the nervous or vascular agency of poison introduced into a wound.

13. ABDOMINAL DROPSY WITH PREGNANCY.*

We have frequently directed the attention of our brethren to this subject, and we believe we have collected more information on the complication in question than can be found in any other work. We add the particulars of the following case to those already on record.

Mrs. A. aged 40, robust, and the mother of three children, stated that she miscarried on the 15th Jan. 1825, being the third accident of this kind, and always at the end of the third month. Having caught cold at this period, she soon began to feel a fulness of the abdomen, which gradually increased. Though the catamenia continued regular, yet she supposed herself pregnant. On the 11th July, when she applied to Mr. K. she was the size of a woman in the 5th or 6th month of utero-gestation—countenance sallow—urine scanty—bowels costive—shooting pains in the left side—general health not affected. The abdomen became more and more distended, and, by the 1st October, it was necessary to draw off the water, when 27 pints were evacuated. In a short time she was able to do the duties of the house. Still she suffered pain in the left side, and the fluid began to collect in a few weeks afterwards. By the 30th January, 1826, she was as large as before. She now stated that she felt something like the motion of the child, but, from the anasarcous state of the abdomen, it was impossible for Mr. K. to determine the point. The lower extremities were much swelled, and one of them gave way. The catamenia had not returned since June.

On the 11th February, she was suddenly delivered of a small living child, of 7 months. After delivery, the abdomen was very little reduced in size. On the 21st Feb. she complained of general pain in the bowels, short breathing, cough, inability to lie on the left side. She now became affected with hiccup, high fever, black vomit, and all the symptoms of puerperal peritonitis. Yet she struggled through and got so far recovered as to be able to move about. But the dropsical swelling increased, and, on the 19th of June, she was again tapped. Only one quart could be got to flow, from what cause was then unknown. After this, the patient's health gradually declined, and she died on the 29th June.

Dissection. Thirty-six quarts of water were drawn off by the trocar. On opening the abdomen, an immense sac appeared, covering completely all the viscera. It was easily detached by the fingers, except where it was connected with the broad ligament of the uterus. There it required the scalpel. A great quantity of shreddy matter adhered to the inside of the sac. The ovarium of the left side was enlarged, and enveloped in a mass of hydatids. The right ovarium was not so much enlarged, but equally enveloped in hydatids. The other viscera were healthy. It was now discovered that the trocar had not entered the sac in the last operation. There can be no doubt that the sac was an hydatid.

14. DISEASE OF THE BRAIN WITHOUT CORRESPONDING SYMPTOMS.

When we find disorganization of a part in the dead body, where few or no symptoms revealed its existence during life, we are always surprised; but when this part happens to be the brain, the sensorium commune, we are confounded in all our calculations.

A man was received into one of our public hospitals for an accident—a fracture, which got well, or nearly so, in due time, and when he was on the eve of departure, he suddenly expired in his bed, before any assistance could

* Mr. Kesson. Ed. Journal Med. Science, No. 4.

be offered to him. On dissection, all the viscera of the body were sound, except the brain. Here was unequivocal evidence of chronic inflammation of the arachnoid, that membrane being thickened and opaque. The pia mater was infiltrated with serous effusion, and more than four ounces of water were found in the lateral ventricles. No symptoms during life indicated the existence or progress of such a disorganization; and we can only account for such a circumstance by the slowness of its march. Instances of this kind are recorded by many observers, and they teach us humility in our prognostic and diagnostic enunciations.

15. EXCISION OF THE HEAD OF THE HUMERUS.

This severe operation has been lately performed by Mr. Syme, of Edinburgh, in the case of a woman, who had a diseased shoulder-joint of several years' standing. The operator made a perpendicular incision from the acromion, through the middle of the deltoid, extending nearly to its insertion, and traversing an old sinus. On introducing his finger, he felt that the disease was almost entirely confined to the head of the humerus; he, therefore, formed, by a semilunar cut, a flap from the scapular portion of the deltoid—exposed the joint—insulated the head of the bone—protruded it—and sawed it off, without any injury to the soft parts. The glenoid cavity of the scapula was found quite sound, except that it was deprived of its cartilage. A portion of the acromion was bare and rough; it was, therefore, removed by the cutting pliers. There was a smart hæmorrhage at first; but the only artery of consequence which was divided was the posterior circumflex. This was compressed with the finger till the operation was finished, and then tied. The flap was now replaced, and retained in perfect apposition by five or six stitches of the interrupted suture. Simple dressings were applied—the whole operation occupying ten minutes. Some fever followed, and was met by proper antiphlogistic measures. Erysipelas and some degree of sinking required stimulants, and the cure went regularly on to a favourable termination. The limb is shortened about an inch, and the shoulder-joint is susceptible of distinct motion in all directions by means of its own muscles, while all the other joints of the limb are as serviceable as they ever were.

This bold operation is creditable to Mr. Syme, who has thus remedied a disease of the shoulder-joint that had existed for seven years, rendering the arm entirely useless—embittering the patient's life—and threatening to destroy it altogether. This operation, originally performed by Mr. White, of Manchester, and by one or two other surgeons, has, for a great many years, fallen into disuse. Perhaps Mr. Syme's case may excite the attention of surgeons to it once more.—*Ed. Journ. July*, 1826.

16. WANT OF PERICARDIUM.*

There are many cases on record where the pericardium is said to have been wanting; but, as most of these observations were made at a time when inflammations of the heart and its envelopes were not much known, it is supposed that many of the cases related by authors, were those of adhesion between the free and reflected sheets of pericardium. This may be true; but still, to assert with Haller, that this error was always committed, is not in accordance with M. Breschet's experience. The following is one of M. Breschet's reasons for questioning the scepticism of Haller.

* Repertoire, No. 1. M. Breschet.

Case 1. A young man, 28 years of age, tall and thin, enjoying habitual good health, was received into the Hôtel Dieu on the 5th Dec. 1825, for a severe intestinal inflammation. He evinced no symptom of any affection of the chest, functional or structural. The abdominal inflammation resisted every measure, and the patient died three days after he was received into the hospital. The symptoms were those of acute dysentery.

Dissection. The coats of the intestines were found thickened and ulcerated. There was no trace of pericardium, the heart appearing free in the left side of the chest. The heart, lungs, and large vessels were carefully taken out, and laid before M. Breschet, who examined them with the greatest care, and avers that the pericardium was completely wanting. It was supported in its place entirely by the vessels which arose from it. The preparation was presented to the Philomathic Society, and examined by many anatomists, all of whom concurred in the statement of Breschet.

Our author cites several cases from former writers, and especially the case related by Dr. Baillie, in support of the opinion which he has given in opposition to Haller.

17. REMARKABLE CASES OF DYSPHAGIA.

1. An interesting case of this kind lately occurred in Guy's Hospital, the patient being a young woman from the country. Her difficulty of swallowing being very great, and yet the œsophagus not presenting any obstruction to the introduction of a bougie, the medical officers had some suspicion of imposture. The young woman had much cough and profuse expectoration, which, with the dysphagia produced rapid emaciation. The patient left the hospital without relief, and soon afterwards died in the country, being literally starved by the inability of swallowing food. The body was examined after death, and the morbid parts shown by Dr. Burne to the Physical Society of Guy's Hospital, on Saturday night, the 21st October. There was a fistulous communication between the trachea (a little above its bifurcation) and the œsophagus, an inch in diameter, the edges being perfectly cicatrized. There was no disease, either in the trachea or œsophagus. The lungs were tuberculated, and purulent depôts existed there.

The great curiosity of this case is, the possibility of swallowing at all, without a portion, at least, of the aliment, whether solid or fluid, getting into the trachea at each attempt. For our own parts, we believe that some of the aliment did get into the air passage, since it was observed in the hospital, that every attempt to take food was accompanied or followed by great distress—generally by vomiting and coughing. It was argued in the Society, that Nature had made some effort to obviate this accident, in the same way as she does when the epiglottis is destroyed by ulceration, and where the power of swallowing still continues. But the cases are not analogous. The muscles about the rima glottidis have the power of shutting that aperture, when any thing else than air is presented; but this could not have been the case, where a breach was made between the trachea and œsophagus. Our conviction is, therefore, that the dysphagia arose from this very circumstance—namely, the escape of matters from the gullet to the air passage, causing the distress that was complained of. How long this unnatural aperture had existed, could not be ascertained, but we understood that the dysphagia had been complained of for some years. We should suppose that the aperture was caused by ulceration, and remained fistulous afterwards from the transit of matters through it.

2. Dysphagia, with Organic Disease.

In one of the late sittings of the Royal Academy of Medicine in Paris, M. Kerkaradec presented a curious case of organic disease of the pharynx, with dysphagia. A woman, 60 years of age, of melancholic disposition, was subject to a convulsive action of the pharyngeal and laryngeal muscles, on attempting to swallow food, which threatened suffocation. After spitting out precipitately the first morsels of food, she was then able to swallow pretty well. These attacks were at first separated by long intervals; but these gradually decreased, and a sore throat supervening *rendered* deglutition of solids almost impracticable. When she did swallow, she was obliged to lie down in the horizontal position. Nothing could be seen in examining the throat, and the disease was considered to be spasmodic; but the poor woman continued to waste away, while a considerable salivation was established by the habit of spitting out for fear of the attempt to swallow the saliva. To the dysphagia was now added a difficulty of inspiraton, as if the breath was mechanically impeded. The inspiration was accompanied by a hissing noise. The region of the larynx, on the sides, became rather tumefied, and then the medical attendants began to fear they had something more than spasm to combat. Moxas were applied, and mercurial with iodine ointments were rubbed on the neck. These and various other remedies were inefficacious, and after four months of impending asphyxia, death kindly put an end to her sufferings.

The larynx was found healthy, except that it was rather narrower than usual at its inferior part. The internal membrane of the glottis was a little red and swelled, and at its upper and posterior part there were whitish vegetations, apparently springing from the pharynx. The pharynx itself was covered with vegetations, so that its lining membrane could not be distinguished. These vegetations had the cauliflower appearance. In the neck were a number of small encysted tumours containing a suetty substance. M. Kerkaradec considered the vegetations and these encysted tumours to be of the same nature, but varying in appearance, in consequence of the different textures in which they were developed. He asked if they were not all of a tuberculous nature? No answer seems to have been given; and the probability, we think, is, that the disease was tubercular.

The above was a case where much benefit would have been derived from a careful introduction of bougies, and a regular application of the solution of nitrate of silver, proportioned in strength to the varying susceptibility of the parts. We wonder that these means were not tried for the relief of the unfortunate patient.

Two other cases of perforation of the œsophagus and stomach were read in the same Society, by M. Léveillé.

Case 1. A man, æt. 22, was bitten in the right hand by a dog which he *thought* mad. The wound healed, but six weeks after the bite, he was suddenly seized with violent pain in the right shoulder and side of the chest; sense of suffocation, difficult deglutition, vomiting, delirium and death in the course of the night. On dissection the œsophagus was found perforated, with extravasation into the posterior mediastinum.

Case 2. A man, æt. 55, suffered for a year from occasional syncope, succeeded by constipation and symptoms of disease of the stomach, without, however, vomiting or apparent tumour. Violent pain in the hypochondrium came on, one night; belly distended—death. *Dissection.* An oval opening on the anterior surface of the stomach, near the pylorus. On the borders

of this perforation were several yellow tubercles about the size of barley-corns, and the contiguous mucous membrane was destroyed. The left auricle of the heart was double its natural size, and from the septum, between it and the right, grew a medullary tumour, forty-five lines in circumference.

18. DIABETES MELLITUS.

Dr. Bardsley, of Manchester, has lately detailed, with great minuteness, a rather interesting case of this disease. The patient was a weaver, 38 years of age, who was admitted into the infirmary making at the rate of 19 pints of sweet urine in the 24 hours. It was attended with the usual symptoms—dry skin, voracious appetite, thirst, pain and weakness in the loins, spongy ulcerated gums, constipated bowels, &c. He was put upon a strictly animal food diet, with drink containing the nitric acid. Leeches were also applied to the loins. By this plan the symptoms were much relieved, and the urine diminished to five or six pints per diem. He thought himself so well that he requested to leave the hospital. In the course of a few months he relapsed, not being able to procure a sufficient supply of animal food. The bleeding plan was then put in force, and a fair trial given to it, but it completely failed. Then Dr. Bardsley had recourse to opium, a grain of which was given three times a day, the diet being the usual run of the house. This also failed. The original plan of animal food diet was accordingly resumed, and steadily persevered in, till the urine was reduced to five or six pints, with very little saccharine quality, and he was ultimately discharged, apparently cured. He returned several times afterwards to make report of his continuance of health.

As far as one case goes, this affords satisfactory evidence of the superiority of the animal food regimen over the other plans of treatment mentioned above. Where there is no unsound organ, as the lungs, we shall occasionally succeed in curing diabetes; but unfortunately it does not often happen that such uncomplicated cases present themselves to our notice.—*Ed. Journ. Med. Science.*

19. CLINICAL OBSERVATIONS. BY DR. BLAND.*

Case 1. *Cerebral Hæmorrhage.* On the 29th August, at 7 o'clock in the morning, Jean D———, aged 68 years, was found in the court-yard of his residence stretched out, with his head lower than the rest of his body, being insensible and motionless, his face puffed and livid. He was instantly carried in, and a few minutes afterwards he revived, but with hemiplegia of the left side. When Dr. B. visited him half an hour after this, the facial tumefaction had subsided—the left side of the lips was a little depressed—the tongue inclined to that side—the upper eye-lid, on the left side, drooped, and could not be raised, and that eye was rather dull. He pronounced with difficulty, yet the intellectual functions appeared free. The left side was paralyzed—the upper more than the lower extremity. The natural sensibility of the paralyzed parts was unaffected. The pulse was 90 in the minute, and full—the heat natural.

The patient reported that, having been very much constipated, he had strained violently at stool, when he was seized with vertigo, and was unconscious of what occurred subsequently. *Bled to* 12 *ounces, and* 20 *leeches applied behind the right ear.* In the evening, the tongue was more free—the lower extremity less paralyzed, and even the upper extremity; beginning to

* Bibliotheque Medicale, Septembre, 1826.

have some slight degree of muscular power in the fingers. This improvement gradually increased, and, by the 17th September, there was no paralysis left.

Reflections. On a former occasion, Dr. Bland had published some observations on the influence of great muscular exertions in the production of apoplexy; and considers the above as a case in illustration. It requires but the effort to strain while the breath is held in, to convince any one that blood is thereby accumulated about the head. If predisposition to apoplexy obtains at the time, such as weakness, or disease of any of the cerebral vessels, there can be no doubt that this straining may be the immediate cause of extravasation on the brain. That the extravasation was to a very small amount in the foregoing case, we think is evident, from the rapidity and completeness of the cure. But that there *was* extravasation, we have not the smallest doubt.

Case 2. *Pharyngitis, with acute fever.* A female, 35 years of age, after exposure to wet and cold, on the banks of the Rhone, was seized with general malaise, chills, and heats. Two days afterwards, anorexia, pains in the limbs, fever, acute pain in the pharynx, with great difficulty of swallowing. In the same evening the fever was intense, with head-ache, &c. *Barley water. Third day.* The symptoms still more evident—pulse strong and full—difficulty of swallowing increased. *Barley water and warm pediluvia.* The patient fainted away while the feet were in the water, and this syncope continued for the space of 15 minutes. At length the patient revived; but the fever and pharyngitis were gone, to return no more.

Dr. Bland occupies many pages with reflections on this case, and in attempts to prove that syncope has a tendency to check inflammation. In this country the principle has long been known, and syncope is often aimed at in the treatment of severe local inflammation. But in France, where bloodletting is hardly ever carried to such an extent, the effects of syncope are but little understood. The practice pursued by Dr. Bland, in the above case of severe pharyngitis, is a specimen of the Hippocratic practice still prevailing in that country.

20. REMARKABLE CASE. BY C. MULLER.

Case. A corporal in the Sleidgwick Cuirassiers, while assisting a man in putting up hay into a loft, fell back on the ground, and on being raised, it was discovered that he had lost the power of his upper and lower extremities. Surgeon Muller was called to his assistance in half an hour after the accident, and found the soldier pale, but sensible and powerless. The circulation and respiration were unaffected; but the lower half of the body was dead. Feeling was extinct in all parts of the body. There was no external wound; but the man had evidently fallen with his back across a cylindrical block of wood. M. Muller could not ascertain whether or not the spine was luxated. Blood-letting was practised, and a purgative exhibited. In the night, the patient was agitated and delirious. Next morning, he talked rationally, and he was more animated in his countenance; but the pulse was feeble, and he felt convinced that he was dying. He died a few hours afterwards.

On examining the spine, blood was found extravasated between the muscles and the vertebræ, as also into the theca vertebralis, from the sixth cervical to the ninth dorsal vertebra. The brain was perfectly sound, as were all the other viscera of the body.

* Biblioth. for Lœger, 1824.

21. CASES OF SOFTENING AND PERFORATION OF THE STOMACH IN CHILDREN. BY DR. KRUGER.

Case 1. This was an infant consigned to an ill-tempered nurse, who had moreover some suspicious copper-coloured spots on her body. When Dr. K. saw the child, it was then six months old. It was peevish, and evidently laboured under disorder of the primæ viæ, as evinced by acid eructations, vomitings, and green stools. The doctor prescribed alkaline absorbents, tonics, and nourishing diet, with warm baths, and good air. There was a slight amelioration of the symptoms. But they returned from time to time, and were greatly exasperated by the application of a sinapsism to the epigastrium, soon after which, the infant expired in great torture.

On Dissection, the stomach and duodenum were found much distended with gas; and a very gentle movement of this last intestine, for the purpose of separating it from the stomach, caused it to burst. Its coats were softened along the whole extent of the great curvature, into a kind of bouillie, and the mucous membrane was of a brown or greenish colour. In the small intestines there were seven or eight invaginations.

Case 2. This was a little girl, three years of age, who had been confided, like the other, to a nurse suspected of being syphilitic, and who had exhibited copper-coloured spots on the skin. Her food having been of an indigestible nature, and bad in quality, she began to show symptoms of gastric irritation, and diminution of strength. M. Kruger exhibited mercurial medicines, alternated with tonics, and, by these means, the health received a temporary improvement. Suddenly, however, the following symptoms were developed:—general coldness—tumefaction of the limbs—slow respiration. Next morning these symptoms were changed to vomiting and diarrhœa. The irritation ultimately spread to the chest and to the head, and convulsions closed the scene. Stimulants had been administered in this case, both internally and externally.

Dissection. Slight redness of the air-passages—effusion in the chest, and also in the abdomen. The stomach was of a brownish colour internally, and its coats so softened for a considerable space, that they went into a kind of mucilage between the fingers. This disorganization was chiefly found in the great cul de sac of the stomach, and gradually disappeared towards the superior part of the organ. The fluid found in the stomach was slightly acid, as in the former case.

These cases are analogous to some that have been recently published in this country—especially by Dr. Gairdner, and are not devoid of interest.

We shall here state a case of perforation in an adult, which happened in this country.

Case 3. This is related by Mr. Syme, in the October number of the Old Edinburgh Journal, of which the following are the particulars.

J. T. aged 23, had been dyspeptic from childhood, and when he applied to Mr. S. he complained of pain in his stomach, very severe after meals—habitual costiveness—dark-coloured stools—tenderness in the right side of the epigastrium on pressure, without tension there. He was put upon a system of diet, and ordered pills composed of equal parts of the mercurial and compound rhubarb masses. About a month after this Mr. S. saw the patient, who had experienced no relief, and was emaciating. On the 1st. of July, 1825, he dined more fully than usual, and in the evening, was observed by his workmen to put his hand frequently on his stomach. He remarked that he thought he could not live long. In the night he was seized with severe pain in the epigastrium, which he considered to be cramp.

and employed hot fomentations, &c. These proved unavailing, and Mr. S. was called in. He had how severe pain in the stomach and unquenchable thirst, with retching and vomiting. The pain was relieved by pressure—pulse neither sharp nor much accelerated—tongue clean and moist. Bled to 16 ounces—a full dose of opium—sinapism to the pit of the stomach. In the morning, no relief, except of vomiting. A warm bath, and a dose of castor oil, followed by an enema. The oil did not operate, and the enema returned without fæculence. Pulse was now 124 and sharp—pain more extended—abdomen tense and tender. Bled to 30 ounces—salts and senna. July 3d. All the symptoms aggravated. At 4 o'clock he died.

Dissection. Abdomen tympanitic---some air and muddy fluid in the peritoneal cavity. The peritoneum itself was of a brownish red colour, from great vascularity---stomach externally of its natural colour, but much distended with air. On pressure being applied to this organ, air escaped through its parietes. On opening the stomach there was found an aperture, the size of a sixpence, in its lesser curvature, near the pylorus. The margins of this hole were regular, white, and firm, resembling ligament, being somewhat thickened. There were neither ulcers, cicatrices, nor inflammation in any other part of the mucous membrane. Some of the contents of the stomach had escaped through this opening into the abdomen.

Remarks. There can be no doubt that this aperture was an ulcer of long standing, in the stomach. The case is very nearly similar to that which we related some time ago, as happening to Mr. Barber of Covent Garden. In both cases, the rupture of the bottom of the ulcer took place after imprudent repletion. It is highly probable that ulcerations of this kind would occasionally heal, if the patient could be persuaded to adopt a most rigid system of diet on farinaceous food. But there are few who will forego the luxuries of the table, even when warned of the dangerous predicament in which they stand!

Case 4. In a late sitting of the Academy of Medicine, M. Leveillé read a report of two cases of spontaneous perforation of the stomach, of which we shall only notice one. A man, 55 years of age, had experienced four attacks of syncope in one year, and afterwards symptoms of derangement of the stomach, but without vomiting, tumour, or constipation. At length, there came on suddenly in the night, acute pain in the hypochondrium, distension of the abdomen, &c. and death took place before the morning. On dissection there was found an oval hole on the anterior surface of the stomach, of small diameter, near the lesser curvature, three or four inches from the pylorus. Around the perforation were several minute yellowish tubercles. The mucous membrane was eroded for some space around the perforation. The left auricle of the heart was double its natural size, and to the mitral valve was attached an encephaloid tumour, forty-five lines in circumference ---the probable cause of the attacks of syncope.

22. EPILEPSY CURED BY NITRATE OF SILVER.

Dr. Balardini has added one to the many instances on record of the efficacy of this remedy in epileptic fits. The patient was a young woman, aged 21 years, who, from her infancy, was subject to this complaint. It had now become very severe, very frequent, and the paroxysms often followed by temporary alienation of mind. Various remedies had been used in vain, when Dr. B. gave the argentum nitratum a fair trial. He commenced with two grains a day, and gradually increased the dose. The

medicine was continued three months, and never produced any bad effects. Occasionally it acted slightly on the bowels. The patient was cured.

We are inclined to think that this medicine will be more used than heretofore. If epilepsy be dependent on organic disease of the brain, we do not see that the nitrate of silver can do any harm, but probably good, if due attention be paid to local evacuations from the head, and counter-irritation. If, as is very often the case, the disease be connected with irritation in the primæ viæ, there is no other medicine more likely to remove this irritation, or at least to remove the morbid sensibility of the gastric and intestinal nerves, than the nitrate of silver.

23. ERGOT OF RYE.

In some recent Italian Journals we find several cases related where this medicine exhibited its specific effects on the uterus in a very unequivocal manner. In an animated discussion in one of our metropolitan medical societies, this season, an eminent accoucheur contended that the ergot of rye could hardly ever be required for the expulsion of the fœtus, since the efforts of Nature would always, if time were granted her, bring the child within reach of the forceps, when it could be extracted without danger or difficulty. He also contended that if the os uteri were not dilated, or, at all events, not easily dilatable, the violent contraction of the uterus, occasioned by the ergot, might be productive of dangerous effects, and probably rupture the organ. It was contended, on the other hand, by some able obstetric practitioners, that, where the os uteri was dilated or dilatable, there could be no just reason for waiting days together for the slow operation of Nature, and that, in such cases, the administration of the medicine was proper and justifiable. Several cases were related by some of the members present, where the medicine was administered with advantage, and without any bad consequences. Upon the whole, we are inclined to agree with the last class of practitioners, and we think that, under the restrictions above-mentioned, respecting the state of the os uteri, the ergot of rye may occasionally prove a useful auxiliary to the languid powers of the uterus.

24. AN OVER-DOSE OF HYOSCIAMUS.*

The widow Rankin and her daughter had breakfasted on what they supposed to be hyssop tea, but which, in reality, contained an almost entire young plant of hyosciamus niger. The mother, who had taken a larger dose than the daughter, was soon seized with giddiness, vertigo, &c. and when Mr. D. arrived, he found the old woman in a very merry mood, being completely delirious, singing, and imitating with her hands the occupation of spinning. Her pupils were dilated—hands and feet cold—face pale, and covered with perspiration—pulse small and irregular—and she was incapable of comprehending what was said to her. The daughter was not nearly so much affected. Six grains of tartar-emetic, and a repetition of the dose, dislodged the enemy from the daughter's stomach; but it required eighteen grains of tartar-emetic, two scruples of sulphate of zinc, one scruple of sulphate of copper, and three drachms of ipecacuan powder, before the contents of the old woman's stomach could be cleared away. She soon got well, and felt no inconvenience from the strong doses of emetics. Mr. D. regrets not having a stomach-pump, or any thing that would form a substitute. We

* Case of poisoning by Hyssop tea. Mr. Donaldson, of Stonehaven. Ed. Journ. Med. Science, No. 4.

would strongly advise the surgeons of a town to have at least one stomach-pump *pro bono publico*, which should be kept in a place where any one of them could have ready access to it in cases of emergency. The expense would be trifling in this way—and some lives, as well as reputations, would probably be saved by this small JOINT-STOCK-COMPANY.

25. SULPHATE OF QUININE IN FRICTION.

A memoir was lately read in the Parisian Academy of Medicine, by M. Pointe, a physician at Lyons, on the use of sulphate of quinine, employed in the way of friction on the gums and inside of the mouth, in fevers of the intermittent and remittent type. M. Pointe, being apparently a disciple of Broussais, had the fear of "gastro-enterite" in his mind, and found, or fancied he found, the stomach irritated by the internal use of the quinine He, therefore, used it in the above manner, and the fevers were cured. A lively discussion ensued among the different partisans, and some of them stoutly denied that there was any gastritis or enteritis in these cases; but only an "etat bilieux," for the relief of which emetics ought to have been prescribed, and then the quinine would have succeeded better. The exhibition of emetics, however, was against the Broussaian doctrine, and was much condemned. But if "*gastro-enterite*" be the proximate cause of these intermittent and remittent fevers, we much wonder how the quinine should have cured the disease, in whatever way it was administered. We believe, with M. Miguel, the reporter on this memoir, that this same quinine does not act merely as a *revulsive*, the sophism of Broussais, but "*by a specific, though unknown operation on the stomach.*"

26. BRONCHOCELE.

M. Angelot, of Grenoble, has transmitted a memoir to the Royal Academy of Medicine of Paris, on goitre. This curious disease, endemic among the Alps, affects a great number of the soldiers sent there from other countries. They generally begin to show symptoms of bronchocele in three or four months' sojourn among the mountains; but all these goitres are readily cured by the external use of iodine ointment. M. Leveillé observed that, in many instances, it was only necessary to remove from the goitrous country, to be cured of the disease, and cited the case of two persons affected with goitre, by some residence in Switzerland, and who got rid of their complaints by a removal to Paris. M. Desgenettes wondered that the author did not notice one of the principal causes of goitre, the snow-water used by the soldiers. He had been able to preserve whole regiments from bronchocele, by prohibiting this water, and causing the men to bring pure water from a spring for their daily use. But here we think Desgenettes has made a great mistake. That *snow-water* has little or nothing to do with the production of goitre is proved both in Switzerland and other countries, by attention to localities. How is it that bronchocele is so prevalent in Sussex, and so rare in Scotland? The reverse should obtain if snow-water were the cause of the disease. Again, how is it that bronchocele is scarcely seen in the valley of Chamouni, where the water is nothing else than drippings from Mont Blanc—while on the other side of the Col de Balme, in the Valley of the Rhone, we see hardly any thing else than bronchocele and cretinism? That the cause is in the water, we have no doubt: but the snow does not appear to be connected with the etiology of the disease. M. Desgenettes may have preserved his soldiers from

goitre, by causing them to drink from a spring; since it is highly probable that the river waters of Switzerland contain the deleterious agent, whatever that may be. It is fortunate, however, that, in iodine, we now possess a very powerful counteractor of this mysterious poison.

27. BROUSSAIS AND CLUTTERBUCK IN DANGER.

The fevers which have prevailed during the summer and autumn in London, showed such a low type, and affected so many different organs, that even the disciples of Dr. Clutterbuck have maintained, under his own presidency, in Bolt-court, that the mucous membrane of the stomach and bowels was much more frequently the primary seat of fever than the brain. This is a melancholy circumstance. No theory of fever is now likely to last more than a few years; for these vile *constitutions* of the elements around us mock the sublimest genius, and turn all his fine-spun hypotheses into ridicule!

In Paris, dismay prevails among the "gastro-enterite" gentry. M. Honoré has had the courage to proclaim before the Academy of Medicine, that the reigning fevers, as well as other diseases of the French Metropolis, have changed their character; and that, instead of being inflammatory (as they have been for 20 years past) and requiring bleeding and antiphlogistic treatment, they are, on the contrary, exasperated by these means, and require the quinine! In the hospital Necker, as well as in private practice, he has had numerous cases under his care, where, "notwithstanding the symptoms of gastric irritation, they were increased by bleeding and leeching, and cured by bark." The phalanx of Broussais made, of course, a decided stand against this rebellion, and overpowered by numbers the anti-gastric party. But even the disciples of Broussais were forced to acknowledge that quinine did cure periodical fevers—"meme de Nature inflammatoire;" but then they thought it was only when the gastro-enterite had begun to subside! What shifts and subterfuges will the theorists fly to, when facts tail them! The editors of the ARCHIVES wisely remark, that M Honoré's paper was very useful as a check on the abuse of antiphlogistics in the reigning fevers. "We must not," say they, "confound fever with inflammation, nor conclude that all fevers have local inflammations for their bases." They maintain that there may be *inflammations as well as fevers of an asthenic* nature, or at least arising from asthenic causes, and consequently not bearing antiphlogistic treatment.

28. INCONTINENCE OF URINE.

M. Samuel Lair read lately to the Academy of Medicine a memoir on this subject. He refers most cases of incontinence of urine to a want of equilibrium in power between the body of the bladder and its neck—the latter being in an atonic state. The failure of tonics, in these cases, he attributes to their acting equally on all parts of the bladder. He therefore imagined that, if he could stimulate the neck of the bladder and not the body, he might have better success. With this view, he introduced, by means of a catheter, tincture of cantharides so as to touch the urethra in its prostatic part, and also the neck of the bladder. By this process he cured three patients who laboured under incontinence of urine

29. WOUND OF THE HEART.

At a late sitting of the Royal Academy of Medicine, Paris, M. Ferrus read the particulars of a case of this kind. A lunatic, 34 years of age, pushed into his left side a long but narrow and sharp instrument, and two days afterwards was admitted into the Bicêtre Hôpital, the wound being nearly cicatrized, but very painful to the touch. The pulse was small, and intermitting—the breathing laborious—and below the wound an undulating sound was heard, like the passage of blood through a varicose aneurism. The patient affirmed that he had not withdrawn the instrument by which he had inflicted the wound. General and local blood-letting was employed; but the breathing became more and more difficult every day, and the patient died on the 20th day from the date of the wound. On dissection, ten or twelve ounces of reddish sanies were found in the cavity of the pericardium, mixed with fibrinous clots. The pericardium itself was inflamed and thickened, and a steel stylet was found implanted in the parietes of the left ventricle of the heart, the point of the instrument having penetrated some lines into the cavity of the *right* ventricle, after traversing through the *left*. —*Revue Med.*

30. SYMPATHETIC EPILEPSY.

Two cases of this kind are reported in the Lancet of November 18, 1826, as occurring in St. Thomas's Hospital. The first was a boy who had been affected with epilepsy three months, having generally three or four fits *per diem*. These were preceded by an aura epileptica running from the toes of both feet up along the front of the legs and thighs, the abdomen and chest, at the top of which the two auræ met, when the epileptic seizure always took place. The progress of the aura required about a minute and produced a sensation like that arising from the crawling of an insect. Dr. Elliotson directed half a grain of the cuprum ammoniat. thrice a day, and a ligature to be applied tightly round each thigh at the commencement of the fit. The ligatures were not properly managed at first, and the fits continued; but afterwards they were more strictly attended to, and the fits ceased. The boy was discharged, but again received, the fits having returned. The ligatures were now trusted to entirely, and the paroxysms disappeared.

In the second case, the aura epileptica also arose from the feet and ascended to the neck, where the streams united, and then the paroxysm occurred. In this case, the ligatures were tried, but totally failed. It is said, however, that the height to which the streams of aura epileptica mounted, was gradually lessened. When the report closed, the fits were more severe than at first.

The aura epileptica is one of the most puzzling phenomena of this disease. The stream does not seem to run in the course of any particular nerve, artery, or muscle, but travels over all parts indiscriminately till it reaches the sensorium. The ligature, we apprehend, will never do much for the cure of epilepsy. It is too mechanical a remedy. It is very unlikely that the real source of the irritation is in the place where the aura appears to commence. The plan of stopping it by ligature has long ago been tried, and failed.

31. FISTULA IN PERINEO CURED BY OPERATION.

Mr. White, of the Westminster Hospital, has lately been successful in a bad case of the kind. The patient had been in two or three hospitals

previously for a fistula in perinæo, occasioned originally by a wound in that part Mr. White introduced a staff as far as the stricture surrounding the opening, and then cut down in a line with the original direction of the urethra, till the whole of the strictured part was laid open. A gum catheter was then introduced into the bladder through the urethra, and left there. This was afterwards changed for a silver catheter, and the wound granulated over the instrument. In about a month the urine ceased to ooze from the wound, and in three weeks more the wound was closed. The strictured parts were found to be in a very indurated state when divided. The operation is not new; but we understand the case was very ably managed by Mr. White.

32. CAUSTIC IN INFLAMMATION OF THE ABSORBENTS.*

In a former number we gave a full account of Mr. Higginbottom's experience of the argentum nitratum, as an application in several surgical complaints. We have not the smallest doubt that both the internal and external use of this valuable medicine will be soon extended. The present communication of Mr H. respects the application of caustic to inflamed absorbents. Three cases are related, of which we shall briefly notice the particulars.

Case 1. A woman had an ulcer formed, in four or five days, from a furuncular swelling on the forearm, near the wrist, with inflamed and irregular edges, the absorbents leading from the part, up the arm, being also inflamed. The nitrate of silver was applied to the ulcer and surrounding inflammation, as also along the inflamed absorbents. The inflammation was checked in twenty-four hours, and she was soon well. She took some blue pill and salts and senna.

Case 2. A girl, 11 years of age, had a fall on her elbow, 14 days previously, which caused a wound, the size of a six-pence, and from neglect, it became inflamed and highly irritable; the absorbents were also inflamed, as indicated by red lines running up to the axilla, where the glands were enlarged and tender. She had shiverings, furred tongue, head-ache, loss of appetite. Mr. H. applied the caustic along the inflamed absorbents, over the tumour in the axilla, and slightly over the wound. Gold-beater's skin was applied over the ulcer, and the other parts were left exposed to the air. No medicine whatever was given. She passed a restless night, but expressed herself relieved next day, the inflammation of the absorbents having much subsided. On the second morning, she made no complaint. The eschar remained adherent on the wound. On the third morning she was quite well.

Case 3. This was one of diffuse phlegmonous inflammation. A young lady presented herself with swelling, hardness, and redness of the skin, seated in the ham, and extending along the back part of the thigh and calf of the leg, which had been increasing for four or five days, without any assignable cause. The patient was feverish—the inflammation had a phlegmonous character. The lunar caustic was applied over the whole surface of the inflammation, the part being previously moistened with water. It may be necessary here to observe, that Mr. H. always applies the caustic in the solid form, and finds a slight application sufficient, if it passes over

* Mr. Higginbottom. Lond. Med. Journ. No. 3.

every part of the inflamed surface. On the inside of the hands and feet, where the cuticle is thick, a freer application may be made, as vesications do not so readily take place; but even in these parts, Mr. H. has not found it necessary to use it very freely. He always removes any moisture which may be left on the part by means of a little linen or lint. The young lady did not return next day, as she was desired. Three days afterwards, when sent to, she reported herself well. Mr. H. visited her, and found no vestige of inflammation or swelling. A slight vesication had been caused the day after the application of the caustic, and the cuticle was separating. No pain was experienced from the application.

The views of Mr. Higginbottom seem to derive support from the practice of Baron Larrey, as reported in our number for July last.

33. PUNCTURED WOUND OF THE POSTERIOR TIBIAL ARTERY.

A formidable case of this kind lately occurred at Bartholomew's Hospital. A young man was wounded by a piece of iron in the calf of the leg, succeeded by considerable hæmorrhage. When received into Hospital, the limb was much swollen and very tense. It was not suspected by Mr. Lloyd that the artery was wounded, and the usual means of reducing inflammation were employed. Three weeks passed away, without any reduction of the swelling, and Mr. Lawrence was induced to think that a large vessel had been wounded, though he did not believe that vessel to be the posterior tibial artery. One part of the swelling softened and was opened, when a quantity of blood and pus issued, apparently from a deep source. The wound was enlarged, and the artery was felt pulsating. Mr. L. proposed amputation as the best remedy, and it was consented to. On examining the leg, a large cyst was found, whence a pound of pus and blood was evacuated. The posterior tibial artery and vein were discovered to be wounded, and this was the source of the mischief.

This case is fully detailed in No. 169 of the Lancet.

34. EXPERIMENTS ON THE BILE.—MR. MAYO.

Our readers will remember the experiments of Mr. Brodie on this subject; by which it appeared that ligature of the ductus communis choledochus of animals completely prevented the formation of chyle from the food swallowed. Magendie, in his work on physiology, states that he repeated Mr. Brodie's experiments, but with dissimilar results. This led Mr. Mayo, assisted by Mr. Cæsar Hawkins, to go over the same ground with his countryman Mr. Brodie, and his experiments, detailed in the October number of the Medical and Physical Journal, tend to confirm the conclusions to which Mr. Brodie had previously come. It will be unnecessary to do more than glance at these experiments, having already given the substance of Mr. Brodie's paper in our Journal, for June 1823, page 186, *et seq.* The experiments were performed on cats and dogs, some of which died after the operation, and others were killed; but in none of them did the least trace of chyle appear in the intestine or lacteals. Mr. Mayo thinks that Magendie may possibly have been led into error by mistaking the empty mesenteric arteries for lacteals containing chyle.

35. VICARIOUS MENSTRUATION.*

Much and unnecessary scepticism obtains, especially among the less experienced part of the profession, respecting vicarious discharges. Many will not believe in the existence of phenomena which they can not account for—though, heaven knows, there are very few phenomena, whether of health or disease, which are capable of satisfactory explanation. The case which Dr. Barnes has related in our esteemed contemporary of the North, will doubtless be looked upon as rather fanciful, by those who do not know the multitudinous forms which hysteria and suppressed menstruation occasionally assume in females of delicate organization and susceptible nerve. We have seen many cases much more puzzling than the one related by Dr. Barnes, and some of these we have put upon record. A vicarious discharge of blood from the lungs is no uncommon occurrence, under the circumstances in question, and discharges from the other organs and parts, (in impeded menstruation,) of such strange and unnatural qualities sometimes take place, as would not be credited by those who were not eye-witnesses of them. We shall now briefly state the case of Dr. Barnes' patient, which is rather prolix in the original.

Case. The patient is now 30. In youth, she was subject to catarrhal complaints, and occasionally to aphonia. At 14, she menstruated, but the returns were not regular, varying from three to six weeks, and the periods painful. At the age of 19, (1815) she had an attack of hæmoptysis, attended with unfavourable symptoms, as short cough, quick pulse, &c. These gave way to bleeding, blistering, digitalis, &c. Then came on symptoms of hepatitis, for which she was bled, blistered, and mercurialised. After this she remained in a bad state of health for two years, having pain in the region of the liver, dyspnœa, palpitation, indigestion, thirst, &c. The menses, in the course of this (the hepatic) complaint, entirely stopped. 1816, *aged* 21. She was again attacked with hæmorrhage from the lungs, which lasted three days. In eight months an other hæmorrhage took place, and the seizures of hæmoptysis after this came on gradually but progressively, at shorter and shorter intervals. Between 1817 and 1820, the intervals varied from six to ten weeks, and she had always the premonitory sensations of tightness across the chest, with sense of weight in the region of the heart, pain in the left hypochondrium, and difficulty of breathing, without cough. These premonitory sensations led to blood-letting, as preventive of the hæmorrhage; but no relief ever took place till the hæmoptysis occurred, excepting the sense of suffocation was removed by the venesection. Larger quantities of blood from the arm were then tried, as prophylactics, but in vain.

In 1820, soon after a pulmonic hæmorrhage, she was seized with a violent pain in the right side of the head, which forced her to spring from her bed. A discharge of clear water took place from the right ear, and this discharge is said to have returned every eight or twelve hours, for ten days. It was calculated that a teacupful was discharged at each of these times. When Dr. B. first saw her, in June 1820, the lady was much emaciated, pallid, and feeble, with pulse at 100—bowels open. We can not follow Dr. B in his minute details of the attacks of otorrhœa serosa, and the remedies that were tried for it. But we can not help remarking on the somewhat confused statements which Dr. B. has made. Thus, at page 274, we are informed,

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* Case of vicarious Menstruation, with singular Discharge from the Ear, with Remarks. By Thomas Barnes, M. D. &c. &c. *Ed. Journal Med. Science, No.* 4.

that between the years 1817 and 1820, the intervals between the attacks of hæmoptysis varied from six to ten weeks; and in the very next page but one, apparently under the date of 1820, Dr. B. informs us that the lady had no attacks of hæmorrhage for six years. We suppose he means, from the date of his communication at the end, but he ought to have been more perspicuous. We gather from the account, however, that after 1820, the periodical attacks of hæmoptysis were changed into sense of fulness merely of the chest, which was generally removed by opening a vein in the foot. The otorrhœa must have continued for several weeks, but when it ceased we are not informed. About 12 months ago an issue was made in her leg, from which she appeared to derive much benefit, in respect to head-aches and spasmodic pains of her extremities.

Many medical men were consulted on the case of this young lady, personally and by letter. Among others, the late Dr. Gregory was waited upon, with a written statement of this malady. The doctor said it "was a long-winded story, and a hopeless case," but in this last part the doctor was rather out of his reckoning, though we suspect he had some reason for the epithet applied to the narrative, if we may be allowed to judge by the specimen now laid before the public. In respect to the nature of the affection of the head, and the discharge from the ear, the doctor professed to know nothing—which was candid enough. He recommended attempts to restore the function of the uterus, by pediluvia and open bowels; but he had no faith in what are called emmenagogues.

Dr. Barnes adduces as a reason for considering the hæmoptysis vicarious of the catamenia, the circumstance of the former having come on "after the menses had been *suppressed*." Such, however, does not appear very clearly on the record; for we find the *first* hæmoptysis came on when the intervals varied from three to six weeks; and, moreover, that during the first six months after the commencement of the pulmonic and hepatic affection, she "menstruated three or four times." Here is a manifest inconsistency, if not a complete contradiction. It is true, the menses after this became *suppressed*, and the hæmoptysis returned; but it can hardly be justifiable to conclude that the first attack of hæmorrhage from the lungs was of a vicarious nature.

In respect to the *otorrhœa serosa*, we fear that most of those who speak candidly, will give the same answer as Dr. Gregory did—namely, that they know nothing about the matter. It is curious that Dr. Barnes never could get a sight of the patient when the aural discharge was flowing. It is possible, therefore, that some error crept in. The learned editors of the journal in which the case is detailed, have quoted examples of otorrhœa serosa alternating with the menstrual and hæmorrhoidal discharges. The same is noticed in Buchanan's Acoustic Surgery.

Dr. Barnes' case is interesting, as showing the advantages which were *derived* from blood-letting in the foot, when the tendency to fulness in the chest occurred, and which Dr. B. considers as a much more effectual mode of relieving the upper parts of the body than bleeding from the arm. The case also shows that, in these vicarious hæmorrhages from the lungs, there is not near so much danger as in idiopathic hæmoptysis.

36. SILK-WORM-GUT LIGATURES.

In the second volume of the Edinburgh Medical Transactions, Mr. Fielding, surgeon, at Hull, has published a short paper on the above species of ligature for securing divided arteries. Mr. F. remarks that Mr. Lawrence's

plan of using small silk ligatures, and cutting them off very close to the knot, has not been found to answer the expectations formed of it. In a great variety of cases where he has seen this plan tried, the knots of silk were not absorbed, and were ultimately thrown off unchanged after a slow suppuration, attended with pain and irritation for several weeks or months, to the great annoyance of the patients. As the ligatures now used are attended with inconvenience, and not soluble in the fluids of the body, our author presumes that any attempt to obviate or remove these inconveniences, is deserving of attention. Time alone can prove whether the substance proposed by Mr. Fielding shall be attended with all the advantages and security which he anticipates; but he assures us that hitherto it has answered his expectations. The silk-worm-gut was suggested to our author by his assistant, Mr. Heseltein. It is much used by fishermen at the end of their lines—is apparently an animal substance—will sustain a weight of several pounds without breaking, and may be softened by being steeped for half an hour in warm water, so as to be easily formed into a knot, either single or double, as may be required. Or it may be placed in cold water over night, before it is wanted. This substance retains its tenacity long enough for union of the coats of the vessels to take place.

Twelve cases of surgical operations are briefly detailed by our author, in which this species of ligature was used with perfect success. "They prove satisfactorily, that the substance secures the vessels effectually. In no case have we seen any appearance of the knots, though carefully looked for at every dressing; and in no case has any abscess, or other inconvenience followed its use, as far as I know." It appears, therefore, to Mr. F. that the vessels are as secure—that the wounds heal sooner—and that the patients suffer less pain during the cure, than by the methods in common use. The gut may be procured at any of the shops where toys or fishing tackle are sold. We think the proposal of Mr. Fielding is worthy of further trial by operating surgeons.

37. MOXA IN PHLEGMASIA DOLENS.

In the second edition of Mr. Boyle's work on Moxa, we observe, among numerous cases where great benefit was derived from this remedial agent, a case of phlegmasia dolens, in both the lower extremities, to which moxa was applied.

The woman was a patient of Mr. Allan's; and the disease had made its appearance at the usual period after confinement. It had been treated judiciously by Mr. A. but although the symptoms were mitigated, they were not subdued. The lower extremities were enormously swollen—skin tense, hot, and transparent, with traces of extravasated blood in some places. The parts had an elastic rather than an œdematous feel, and there was much pain in the erect posture, particularly in the groins. As it was considered that a sub-acute inflammation existed, the moxa was first cautiously applied to the least inflamed limb, near the foot and ankle, and was followed by a pit or depression of the part where it was applied, together with a relaxed appearance of the surrounding skin. After this a bandage was applied, and a most profuse perspiration in both limbs succeeded. On the following day she pronounced herself relieved, and the swelling of the thigh was evidently lessened. The pain of the groin was still severe. In pursuance of Dr. Davis's Theory of Phlegmasia Dolens, Mr. Boyle applied the moxa in the line of the femoral artery in the groins, in addition to the foot and leg—and this also was attended with much advantage. The effect

of applying the moxa on alternate days was tried; but it was found the disease was aggravated on the intermediate days of application. The moxa was therefore applied every day, and sometimes twice in the same day. In about three weeks the patient was able to leave town for the benefit of country air, having but little remaining swelling in her limb.

For a variety of cases in which Mr. Boyle applied the moxa with great advantage, we must refer to the second edition of his work, which is much enlarged, and is well worthy the attention of the surgical practitioner.

38. SUDDEN AND MYSTERIOUS DEATH.

A case lately occurred under Dr. Latham, in Bartholomew's Hospital, where a young married woman, who had been received in a febrile state, with great debility, œdema about the ankles, and pain, on pressure, in the epigastrium, was suddenly seized with something like spasm about the heart and in the bowels, a few days after she entered the hospital, and expired in the course of two or three hours.

On dissection, we understand, no organic disease or trace of inflammation could be detected in any part of the body, except near the fundus uteri, where there were some appearances of phlogosis. One of the ovaries contained hair and other extraneous matters, and was enlarged to the size of an egg.

39. REMARKABLY SEVERE GUN-SHOT WOUND.*

The following case is not brought forward by Dr. Boggie as an example for imitation, but rather as an uncommon instance of what Nature is sometimes capable of effecting under circumstances apparently desperate.

Case. Lieut. Col. L. while in the front of his regiment, in the battle of Waterloo, was deliberately aimed at by a rifleman of the enemy, and struck in the leg, by which he was felled to the ground. He was carried to Brussels in a car, and seen the next day by Dr. B. It was found that the ball had entered the fore-part of the leg about the middle, and was lodged there. It had struck upon the internal flat surface of the tibia, close to the anterior ridge, causing an oblique fracture and splintering of both bones. The colonel was 30 years of age, of slender form, temperate habits, sanguine temperament, and active mind. He was not ruffled by the accident, and the pulse was calm. An opinion was given that the leg ought to be amputated, although the operation was not indispensable at that moment. It was even proposed to make an attempt at saving the limb. There being no inflammation present, the wound was simply dressed, and the antiphlogistic regimen prescribed. Except constant pain in the fore part of the leg, there was no material change for several days. There was a splinter of bone threatening to ulcerate the skin, and causing much irritation. On making an incision over this piece of bone, a large portion of the tibia was found quite loose. This was removed, after making an incision to within an inch of the ankle-joint. The portion removed measured 4½ inches in length, involving, at one place, nearly half the calibre of the tibia. It was now the opinion that so large a portion of bone could not be regenerated, and that amputation ought to have been performed. But the patient was averse to the operation, and Dr. B. was not

* Dr. J. Boggie. Ed. Med. Chir. Trans. vol. ii.

anxious to put it in force. The limb was simply dressed—there was no tendency to fever—suppuration came on freely, and every thing went on well. The aperture by which the ball had entered was so small that it was found necessary to dilate it by the sponge tent, and several portions of fractured bone were removed. The ball lay concealed for some weeks, but was at length discovered on the fibular side, just under the skin. It was easily removed. The limb had hitherto remained in the extended posture, resting on the heel, and was now (after six weeks) changed to the bent posture, and placed on the outside Inflammation quickly succeeded to this change, accompanied by violent fever, and threatening of gangrene. The posture was changed again to the original, and 20 ounces of blood were drawn. Cold lotions, saline cathartics, rigid antiphlogistic regimen. The inflammation and fever abated in a few days, and the patient was brought back to his pristine condition. The purulent discharge was copious but healthy. No appearance of consolidation was perceptible at the end of three months. After this period, the discharge lessened, and very soon afterwards, "osseous matter was secreted, and the union of the bones became so complete, that the leg could be moved with safety, and handled with the greatest freedom." In little more than four months the large piece of bone "was completely renewed, its regular shape preserved, and the wound cicatrized." The colonel has a very tolerable, or even perfect use of the leg, and enjoys good health. The case was seen by Dr. Thomson, Dr. Somerville, Mr. Guthrie, Mr. Bell, Dr. Hennen, and others.

The gallant officer had a narrow escape, unquestionably; but still we think Dr. Boggie was justified in the attempt to save limb as well as life, under the existing circumstances of the case. We have seen more than one instance where life and limb were preserved under circumstances at least as unfavourable as those detailed above. A case indeed lately occurred at Guy's Hospital, and is reported in No. 169 of the Lancet, where the injury was not less formidable than in Dr. Boggie's patient.

A young man had his right leg very badly fractured by the wheel of a loaded waggon going over it, and even resting some time on the limb. The tibia was broken close to the ankle joint, and it was supposed that the bone was split down into the joint. The bone was insulated from the surrounding parts for four or five inches, so that the finger could be passed nearly round it. The fibula was broken, and the soft parts were greatly lacerated. Mr. Lawrence advised amputation, but the patient would not submit to the operation. Aperients, lotions, repeated bleedings, and all the usual antiphlogistics, were sedulously employed. Suppuration and granulation went on kindly, and in two months the man was able to raise the limb, without any pain. The leg was taken out of the fracture box and laid on a pillow; but this change kindled up, as in Dr. Boggie's case, a severe fever and inflammation, so as to endanger the man's life. Happily these symptoms were got under by proper measures, and the man did well. Both of these cases show the caution necessary in disturbing the position of the limb too soon after accidents of this kind.

40. SUBCARBONATE OF IRON.

Dr. Duparque has been testing (to use an American phrase, and by no means a bad one,) the virtues of subcarbonate of iron, in neuralgic affections, and it appears, from his testimony, that the nerves of Frenchmen are nearly as susceptible to the steeling process, so long employed in this country, as those of John Bull. Dr. D has related a considerable number of cases in th. July No of the Bibliotheque Medicale, where the carbonate of iron succeeded, after quinine and various other remedies had failed, in facial

and other neuralgiæ. We shall only give the particulars of one case, as an example.

Madame P. 68 years of age, had been afflicted, for 16 years, with suborbital neuralgia of the right side. The pains returned at irregular periods, but were seldom more than eight or ten minutes absent. The pains were of a tearing, burning character, accompanied by sneezing, lachrymation, and redness of the conjunctiva. The motions of the lower jaw, the tongue, and the pharynx, were sometimes almost annihilated, and the whole body rendered stiff, as in tetanus. All the means that could suggest themselves to some of the most eminent Parisian practitioners were tried, but all in vain, and it was contemplated to try a division of the nerve; but at this time Dr. D. administered the carbonate of iron. After four days, the intervals were lengthened to four or six hours, and the attacks were proportionally diminished.

Dr. D. remarks that this medicine has great advantages over most others; 1mo. because it is easily taken, even in large doses; 2do. because it is not capable of causing any local or general disorder in the system. None of our author's patients complained of head-ache, flushings of the face, acceleration of the pulse, or any other unpleasant effect from the medicine. It generally increased the appetite, and improved the functions of digestion.

It is gratifying to find this corroboration of the therapeutical effects of carbonate of iron in foreign countries. Indeed, we think that, next to quinine, the medicine in question is one of the most important we possess in the reduction of that morbid sensibility of the nervous system, so prevalent in this country.

41. PRINCE HOHENLOE IN PANTON SQUARE.

The prayers of this righteous prince have at length prevailed, for Margaret B———, the mother of three children, has been *miraculously* cured of an ovarian tumour, the size of a child's head, of four years standing, (and which *appeared suddenly* at the beginning,) by seven bleedings from the arm in the course of nine consecutive days, in the Surgical Hospital of Panton-square. This ovarian tumour occupied "the left lower region of the abdomen"—was soft and elastic, with a distinct sense of fluctuation, and exquisitely painful on pressure, or on making a *deep inspiration*. She had symptoms of fever, and disordered bowels. After one or two bleedings, she was suddenly seized with a convulsive fit—then talked incoherently—pulse sometimes almost imperceptible—breathing stertorous—abdomen tense and tender. She was bled day after day, and took calomel, occasionally. On the ninth day, when the tumour was sought for, it was gone—having been cured by seven bleedings, "without any preternatutral discharge from the rectum or vagina."

Is it in the 19th century that we are to be told such tales? The experience of mankind is the test of miracles. So said Gibbon—and so say we, especially as it respects *medical* miracles. Is there a surgeon from the South Foreland to John O'Groats, who knows any thing of tumours of the ovarium, and who would, for one moment, entertain a thought that the above case was such a disease? Margaret B. had just as much an ovarian tumour, as she had an elephant's tusk in "the left lower region of the abdomen." We suppose the reporter, in this case, was one of those tender "youths of fifteen," whose education is taken under the especial protection of the RADICAL PRESS. When he grows a little older, he will distinguish those deliveries, "*à la Johanna Southcote*," from cures of ovarian dropsy by seven bleedings.

More Miracles. A young man, aged 21, was admitted into the Hospital of Surgery for severe inflammation of the left eye, affecting several of the

structures. Cupped to twenty ounces, and two grains of calomel, with some rhubarb and antimonial powder, to be taken every three hours. 2nd day, cupped to the same quantity, and the pills to be continued. 3d day, bled, at twice, to the amount of forty-five ounces, and ordered three grains of calomel, with one of opium. 4th day, bled *ad deliquium*. Same dose of calomel and opium. 5th day, bled again. 6th day, bled to 16 ounces. 7th day, bled and purged. The pain and inflammation now subdued.

This is a miraculous cure, and worthy of being recorded. But it is just as possible that some effusion of blood might have been spared, and the cure have been quite as speedy, had some auxiliaries been added to the LANCET, (which is the staff of life in Panton Square,) in the shape of antimony, colchicum, and some other antiphlogistics. As the deep-seated textures of the eye were, apparently, implicated, some people would have given the calomel and opium in a more efficient manner, and affected the mouth in a couple of days, by which the inflammation would have been arrested. It is true, that the man is turned out of hands cured of the ophthalmia—but the lancet may, perchance, have laid the foundation of a job for the doctors bye and bye.

42. CASE OF CHRONIC DYSPNŒA.

The younger Andral, whose name is familiar to our readers, has related a curious case of this kind, which is worthy of notice.

Case. A young man, with glandular swellings on both sides of the neck, presented, for some time, certain symptoms of organic disease of the heart, and entered La Charité in March, 1826. His face was puffy, livid, and the eye-lids œdematous—belly dropsical—breathing short and quick, and performed entirely by the action of the ribs on each side—inability to lie down without sense of suffocation. This state of dyspnœa had continued for more than a year, and was always augmented by wet weather. The chest sounded well in every part, and auscultation could detect nothing particular in the region of the heart. A mucous wheeze was heard in various points of the thorax, with some cough, and a trifling mucous expectoration. The appetite was good, and the bowels rather relaxed, but without any abdominal pain. The pulse was natural in every respect. There were, therefore, no proofs, by auscultation, of any organic disease of the heart, although many general symptoms seemed to indicate the existence of such a lesion. There was something particular, however, in the dropsical effusion. It was confined to the abdomen, which is seldom the case in disease of the central organ of the circulation. Various therapeutical agents were employed, as local and general bleeding, blisters, diuretics, &c. During the succeeding six weeks there was no perceptible alteration. The orthopnœa was constant, and the patient was breathless whenever he attempted to get out of bed. Auscultation was repeatedly tried, but without any conclusive results. He was suddenly seized, on the 1st of May, with an augmentation of the dyspnœa, which soon became extreme, and in a few hours he died, apparently suffocated.

Dissection. No visible alteration in the brain or spinal marrow. The heart was found perfect in every respect, as were the large vessels issuing from the heart. There were a few miliary tubercles distributed here and there in the lungs, which were otherwise sound and crepitous. The anterior mediastinum contained a mass of tuberculated lymphatic glands, through the centre of which passed the two phrenic nerves, which could not be disentangled from it, and by which they were compressed. From the exit of these nerves

to their distribution on the diaphragm, they were remarkable by their grey colour, resembling that of the optic nerves in a state of great atrophy. There was no abdominal lesion of any consequence, except the serous effusion above-mentioned, and another mass of tuberculated glands in front of the vertebral column, *which pressed strongly on the cava inferior, and also the vena portæ, which they completely encircled.* On each side of the neck, from the angle of the jaw to the clavicle, there was a chain of tuberculated lymphatics, several of which were interposed between the vessels and nerves of the neck. The carotid artery and jugular vein were separated to some distance by these enlarged glands. The pneumo-gastric nerves, on both sides, were entangled in these masses, and remarkably flattened at these points. There was nothing else remarkable in the body.

Remarks. It is impossible not to accord with M. Andral, in placing the terrible dyspnœa, and orthopnœa, in this case, to the pressure on the pneumogastric and phrenic nerves—in the absence of organic disease of the heart. Perhaps, Dr. Paris may be inclined to take advantage of this case for the support of some pathological opinions which he has broached in his work on diet, and which are noticed towards the close of our review of his work in this Number of our Journal. He is at perfect liberty. But we would beg him to remember that in *his case*, there *was* aneurism of the heart, and *no* mechanical pressure on the phrenic or diaphragmatic nerves—whereas, in the *present case*, there *was* mechanical pressure on the nerves, and *no* disease of the heart. This makes some little difference. Moreover, in Dr. Paris's case, there was swelling of the limbs as well as of the body, the common consequence of disease of the heart—whereas, in Andral's case, the effusion was confined to the abdomen, and may fairly be attributed to the pressure on the cava and vena portæ.

We have marked this last circumstance in Italics, because it bears on another physiological opinion common to Dr. Paris and Dr. Yeats—namely, that the pressure of a distended duodenum on the cava, caused weakness and fluttering of the pulse. Here there was anatomical evidence of mechanical pressure on the cava, and yet it is distinctly stated by Andral, who could have no theory to support by such statement, that the pulse was always perfectly natural.—*Biblioth. Med. Juill.* 1826.

43. EMPYEMA.

A young man was received into Guy's Hospital, in August last, presenting a remarkable enlargement of the left side of the thorax, and a tumour the size of an orange situated between the edges of the false ribs and crista of the ilium. The man's history showed successive attacks of thoracic inflammation, attended by the usual symptoms; and at one time he could plainly hear the squashing of a fluid in the left side of his chest. On pressing the tumour, its contents could be squeezed back. It was punctured, and 20 ounces of pus evacuated. After this, repeated evacuations took place from the tumour, and in the course of sixteen days 206 ounces were drawn off. But the cough became more harrassing—fever came on—the expectoration became purulent, and the patient died in less than a month from the operation.

The left side of the thorax was found filled with air and some remains of the fluid—lungs shrivelled up—pleura coated on all sides with a thick false membrane. An elongation of the pleural sac had taken place between the 11th and 12th ribs, forming the tumour above-mentioned. In the right lung two small vomicæ were found.—LANCET.

The size of the left side of the thorax showed evidence of such a large quantity of fluid, that little could have been expected from its evacuation, as, in such cases, the lung of that side is generally annihilated, and it is impossible that the other lung can be dilated so as to fill up both sides of the chest----in default of which, air must get in and supply the vacuum. Still the medical officer was perfectly justifiable in giving paracentesis a trial.

We saw a man lately from a distant part of the country, who could, by a particular succussion of his chest, produce the distinct noise of water squashing about in the cavity of the pleura. There was no respiratory noise in the right side of the chest, except very high up, and that not clear. He had this complaint for several years, and was otherwise in tolerable good health. The disease seemed to be at a stand----neither increasing nor decreasing.

44. SPECTRAL ILLUSIONS; OR THE INFLUENCE OF THE DIGESTIVE ORGANS ON MR. ABERNETHY'S OPTICS.

When we heard an ejaculation of joy in the Radical Press, at delivery from an INCUBUS, we gave up all hopes of ever deriving amusement or instruction from the *facetiæ* of Mr. Abernethy again. We have been most agreeably deceived; and are happy to find YORICK once more on the tapis, "setting the table in a roar," with his lively jokes and witticisms. Whether the present series of "Tales of my Landlord," be meant to ridicule the Lecturer, amuse the public, or eke out a *subject* that is growing somewhat scarce, like *subjects* of another kind, we cannot say. But be this as it may, the lectures, as they now appear, are very curious articles, in which quaint truisms are mingled with laughable observations, and just practical rules. We shall only allude in this place to a spectral illusion of a rather extraordinary nature, with which Mr. Abernethy is troubled.

We are informed that the head of Mr. Abernethy's horse came one day in contact with his own, by which accident he had his nose broken, and for some time afterwards, could only see "*two thirds* of an object." But even in this case, we are disposed to think the worthy lecturer's *optic* nerves were more accommodating than his *auditory*----for, to this day, the *latter* will not listen to more than *one third* of a story----unless, indeed, the story be his own. Thus, in looking up at his own name in a shop-window,

A—BER—NE—THY,

he could only see as far as the NE (knee) for the THY (thigh) was quite out of the field of vision, *(a laugh.)* What witty dogs are these nightmares, or rather their exhibitors!

Mr. A. has occasionally, some curious "errors of action, or inactivity in parts of the retina," resulting, we should imagine, from his "digestive organs." He can, when looking in a glass, see the upper part of his head, but "he never saw (says he,) that he had any mouth or jaw"----all being blank between the nose and shoulders.* We are most happy to think that these are only spectral illusions, and hope the worthy lecturer will long continue to convince the world, that he has a mouth of his own to tell his pupils so many droll stories, and a MOUTH-PIECE in some reporter to retail them to the public at large.

* We understand that a still more curious *illusion* occurs when Mr. Abernethy looks at a patient—for then he can see nothing but the *tongue*----all the rest of the patient's body being a blank.---*Rev.*

45. ERGOT OF RYE IN UTERINE HÆMORRHAGE.

M. Goupil, after relating a case where the secale cornutum hastened delivery, proceeds to the statement of another case where it apparently tended to arrest a uterine hæmorrhage.

Case. Madame F. the mother of three children, was delivered of a fourth, after half an hour's expulsive pains. The placenta was removed by a midwife, and, according to her own account, without any force. A profuse hæmorrhage succeeded, and M. Goupil was summoned. Cold applications, and the introduction of the hand into the uterus failed to arrest the flow of blood; and, in this predicament, our author administered twelve grains of the ergot. In ten minutes there was a powerful and painful contraction of the uterus. The hæmorrhage was arrested, and did not return; but a second dose was administered, by way of precaution.

We much wonder, after the evidence which has been afforded, of late years, respecting the power of this substance over contraction of the uterine fibres, that it has not been frequently tried in uterine hæmorrhage.---*Biblioth. Juillet.*

46. VESICAL FISTULA.

In No. 167 of the Lancet, a case of this kind is related, on which we have a remark to make. The patient was originally under Mr. Burrows, an intelligent surgeon in Holborn, for a swelling just below the umbilicus, which terminated in suppuration, and was opened by Mr. Stanley. Ill-conditioned pus was first discharged, and soon afterwards urine came through the opening. This discharge had continued about two years, when he was received into Guy's Hospital. "When the patient strains, or calls the abdominal muscles into action, a fluid is discharged from the opening, which is undoubtedly urine. A small quantity of urine only is discharged in the natural way." Sir Astley Cooper examined the case in Guy's, and concluded very justly that there was a fistulous communication between the abdominal aperture and the bladder. But the reporter puts an expression into Sir Astley's mouth which we are convinced that distinguished surgeon never uttered, namely that--- "It was almost inexplicable that the urine which was discharged into the bladder, at a considerable distance below the fistulous opening, should, as it were, ascend against its own gravity, and be expelled from the aperture."

If the reporter were well acquainted with the laws of physics or physiology, he would be aware that there never is any cavity in the bladder, the parietes of that organ being always in contact with their contents (allowing for the rugæ) whether there be a spoonful or a quart of urine in the bladder. The fistulous aperture, therefore, supposing it to be in the very fundus of the bladder, is always in communication with the urine; and, as there is no sphincter to be overcome there, when the abdominal muscles are thrown into action, where is the wonder that the urine should issue from the external aperture?---*qua data porta ruit.* The patient is in the same condition as a man whose bladder is punctured above the pubes, and a tube left in the wound. In such case, the water is always dribbling through the canula as it is secreted, unless the tube be kept corked. We knew a gentleman who passed all his urine in this manner for two years or more, and, after all, the urine came through its natural channel ultimately, and the artificial opening above the pubes healed. The man in Guy's Hospital should have a catheter kept in the bladder, and pressure made on the fistulous opening in the abdomen. This would give him a very probable chance of cure.---*Chirurgus.*

47. EXCISION OF PART OF THE MAXILLA INFERIOR.

Mr. Lizars, of Edinburgh, has lately added another wreath of laurel to his brows, by the operation above mentioned. The patient was a robust man, 38 years of age, who had been operated on, two years previously, for cancer of the upper lip. Several months afterwards, a lymphatic gland at the base of the inferior maxilla enlarged and became adherent to the bone. This had lately become rounder, conical, the size of an orange, so as to completely lock the two jaws. In short, the disease was pronounced to be osteo—sarcoma, and considered by Mr. L. as incurable, except by the entire removal of the diseased bone. The operation was performed on the 16th August, in the presence of Dr. Scott, of Cupar, Dr. Duncan, Dr. Poole, Dr. Borthwick, &c. The steps of the operation are minutely detailed in the October number of the Edinburgh Journal, and do great credit to the operator. In the early stage of the operation, a multiplicity of arteries sprang, and required the ligature. Mr. L. then proceeded to remove the bone, first rendering it rudely clean at the symphysis, where the disease had extended so far as to involve the four incisor teeth. He attempted to snap the bone with Mr. Liston's nippers, but was foiled, and obliged to saw it through. He next detached it by sweeping with the scalpel, its cutting edge kept towards the chin and trachea. The lingual artery with some others sprang at this time, but the bone being removed, they were easily secured. Mr. L. carefully examined the surface of this extensive wound, removing every apparent vestige of disease. The wound was then sponged, the lips approximated, and proper dressings applied. The operation was rendered exceedingly complicated and difficult by first attempting to remove the tumour and preserve the bone. This was found impracticable, because a part of the tumour was formed by the bone itself, and incapable of being detached from it.

The symptoms which succeeded this formidable operation were not more severe than might reasonably have been expected, and the recovery might be said to be complete. The patient can swallow any pulpy mass—the gap is exceedingly small, about the twelfth of an inch in breadth, and one inch in length. He feels no pain in any part of the wound, and both the cut ends of the bone are covered with granulations. He sits out of bed, and could walk about the room, at the date of report.

The operation is exceedingly creditable to the intrepidity and dexterity of this accomplished surgeon.

In a late sitting of the Parisian Academy, M. Dupuytren presented three patients on whom he had performed the operation in question. This talented surgeon, when on a visit to the Hospital of Invalids 14 years ago, observed that some of the soldiers had had portions of the lower jaw carried away by gun-shot wounds, and yet survived the accident. He, therefore, determined to perform this operation in cases where tumours were adherent to the bone, and incapable of being removed otherwise. In the case of one of the patients now presented, he divided the jaw bone at the symphysis, and amputated a large portion of the bone, including several molares. The soft parts were brought together, the ends of the bone approximated gradually, and, in twenty-five days, the man (who was a hackney-coach master) was able to resume his occupations. M. Dupuytren has now performed this operation seventeen times, fifteen of which proved successful.

48. ORTHOPEDIA.

A female had her leg fractured, and being badly attended, in a chirurgical point of view, the limb, at the end of four months, was so crooked

that she was obliged to walk on the exterior edge of the foot. M. Desgranges, of Lyons, undertook to remedy this defect, and by means of mechanical extension of the member, and well applied pressure on the protuberant angle of the fracture, the most perfect rectitude of the leg was obtained.—*Transactions of the Medical Society of Lyons.*

49. RETROVERSIO UTERI.

An interesting case of this kind is related in the Ed. Journal of Medical Science, No. 4, by Mr. Wise, the author of an able paper on the trephine, in a former number of this Journal. The woman was 35 years of age, well formed, and of healthy constitution, at the full period of her fourth pregnancy. When Mr. Wise attempted to introduce his finger, he found the canal completely blocked up. With some difficulty he got his finger upwards and forwards to the top of the pubic arch, and there felt the os uteri dilated, and a foot presenting. On examination per rectum, the head of the child was distinguished low down in the rectum, filling the hollow of the sacrum. A consultation was requested, and, in the mean time Mr. Wise learnt that, between the third and fourth month, the flow of urine became obstructed, for which the woman took a variety of nostrums, without relief. In this state, a surgeon residing nine miles distant was employed, and drew off her water once a week, there being a constant stillicidium and great distress. By pressing on the head of the child through the rectum, and laying hold of the feet and dragging it in that direction, the delivery was effected, though with considerable difficulty. After this, the patient expressed herself as greatly relieved; but fever came on, and she sunk on the 15th day.

It is difficult, we imagine, to say whether the obstruction of the urine, at the time above-mentioned, was the cause or the effect of the retroversion. A full bladder may cause retroversion—and retroversion may cause such pressure on the neck of the bladder by the tilting forward of the os uteri, as to obstruct the passage of the water.

For numerous interesting remarks on this subject, by Dr. Campbell, of Edinburgh, through whom the communication was made, we must refer to the original paper in our contemporary.

50. PHAGEDENA GANGRENOSA.

A wretched female from Swan-alley, near East Smithfield, was received into Bartholomew's, with sloughing phagedena of the right labium, which had commenced, five weeks previously, as a pimple, which vesicated, and gradually enlarged to its present size, three inches by one. The surface was irregular, and covered with a fetid, pulpy, thick slough, with dark brown discharge, and a halo of surrounding inflammation. The edges were abrupt, and the surface of the sore was dotted with angry-looking points, considered by Blackadder as characteristic of the disease. The peculiarly fetid odour which usually accompanies this sore was here very annoying; but it was not attended with that darting, though intermitting pain, considered by Mr. Welbank as inseparable from the disease. The right labium was destroyed. The general health did not seem much affected—pulse natural—tongue clean—no look of distress. Mr. Lawrence, *therefore*, considered all constitutional treatment as unnecessary, and only directed the application of concentrated nitric acid, the sore to be afterwards covered with dry lint. She did not complain much of this application. An opiate. In the course of two ap-

plications, some parts of the ulcer began to wear a more healthy appearance, but, generally speaking, the disease was advancing. Three days more trial was given to the acid, but without much effect. It was, therefore, given up, and opium, internally and externally, was resorted to. This plan was not effectual, and the acid was again used, in conjunction with the opium, when success finally crowned the surgeon's efforts.

This case is well reported in the LANCET.

But we have a remark to make on it. We question the principle on which Mr. Lawrence determined not to have recourse to constitutional treatment, *because* there were no indications of constitutional indisposition. Now, every man of observation must have seen numerous instances where there was no other obvious disorder of the system than what might be suspected from the bad character of a local sore. Such was the case, we think, here, and, in fact, Mr. L. was obliged to lull constitutional irritation before he could master the sloughing ulcer. The pulse, the tongue, and the countenance may not indicate disorder of the system, and yet many of the secretions and excretions may be unhealthy. The surgeon, therefore, should not be too confident in his caustic, or even his scalpel, but wisely combine general with topical remedies.

51. ON MERCURY.*

The writer, from experience of nearly twenty years, offers a few observations at variance with those of a work on Indian Diseases. That author, professing to take for his guide the appearance of the evacuations in dysentery, (a useful guide certainly,) asserts, that to continue the use of mercury for months, "*or even till ptyalism be produced, is most injurious to the constitution.*" He also thinks mercury "more beneficial in chronic than acute dysentery;" and that "he is contending against the bulk of opinion in India."

The author is contending against the positive result of practical experience; for the *records of practice* will prove, that the cessation of fever, in cases where mercury has been used for its removal, has taken place at the moment at which the register states the *salutary* effect to be visible on the gums—thus, "gums sore, the patient had not his usual attack of fever." In acute dysentery, the records will show, that with the ptyalism, that is, immediately on its being established, "improved secretions" forms an article in the entry, and in acute hepatitis, after the most active depletion, and other auxiliaries. No one would pronounce his patient safe, till he had evidence of the *salutary* effect of the mercury on the gums. How, then, is it pernicious or injurious to secure ptyalism? That perseverance "for months," even under the *salutary* effect, is injurious, and disgraceful to the practitioner who enforces it, is undoubtedly true; but there is an effect of mercury which the writer has seen mistaken for the salutary effect, and the consequence of which has been death. In some from ignorance, in others from inattention, the production of *a sore mouth*, and continuing the soreness, is all that is sought. It is well known that, when mercury does *not* produce its *salutary* effect, it does produce ulceration and a clammy, viscid state of secretion, totally unlike true ptyalism; with this there is great general irritability; yet the writer has seen a patient die *from perseverance under such circumstances*; undoubtedly from irritation, as, on examination, there was no sufficient cause of death, *except the treatment*. Even where, from abscess having al-

* On the Effects of Mercury in Diseases of Warm Climates. By MEDICUS

ready formed, the constitution will not take on the salutary influence of mercury, the earliest opportunity should be taken to discontinue it; as well as in the case of *natural insusceptibility of the salutary effect.*

Of the positive, and, it may be called, *periodical* good effect of the action of mercury in acute dysentery, the writer has already asserted his conviction, and thinks there can not be found, in medical reports, any such evidence of its effects in *chronic* disease.

The object of these observations is, to urge the junior practitioner to secure that state of gums, *which is almost* invariably the index of the establishment of that mercurial action on which success depends;* (in this the previous active depletion will greatly assist;) and *to guard him very seriously against perseverance in the use of mercury, where the symptoms show the constitution to be adverse to its favourable or salutary effect.* In such cases, the writer believes, immediate change of climate, with the use of nitrous acid, the most advisable mode of treatment.

A combination of antimony with mercury will succeed sometimes when mercury alone will not.

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52. CHRONIC GASTRITIS.

On this important subject we have brought forward much interesting information lately, from continental practitioners. The subject of the present short notice, is a case related by Mr. Brown, in the second volume of the Edinburgh Transactions.

A female aged 40, came under Mr. Brown's care in August 1825. She had been exposed to cold about a month previously, while in a state of perspiration, and had been ailing from that period. She had been affected with diarrhœa, for which she had, as is the usual routine, taken *purgative* medicines. Mr. B. prescribed something which is not stated, but which was attended with benefit. On the 7th September the following symptoms were noted:—pain in the stomach, *immediately after taking food*, without vomiting, "or at least without constant vomiting;" and pain on pressing the epigastrium. These symptoms continued unabated till the patient's death, which took place on the 23d November of the same year. The leading and unvarying feature was pain, sometimes of a burning kind, on receiving food or drink. Vomiting was sometimes solicited by the patient to relieve the stomach. The bowels were generally costive, with occasional diarrhœa—pulse seldom above 90—perspirations troublesome, but no other symptom of hectic fever. The appetite was good to the last, but she ate very little. "*She said she was sure she would be quite well if she could do without food.*" The emaciation was extreme. A few days before her death, a small circumscribed swelling was observed, lying over the region of the pancreas, having the regular pulsation of the aorta. She had been twice or thrice leeched and blistered, and had the antimonial ointment applied, without any marked good effect. She twice took the blue pill to the extent of slightly affecting the mouth, and said she was easier both times. Bitters and chalybeates, as might be expected, produced no beneficial influence. "Opium gave relief in all stages of the complaint."

Dissection. The mucous membrane of the stomach was every where thickened and vascular. There was no disease in the liver, intestines, spleen, pancreas, or any other organ.

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* The writer has seen two instances of *small* abscess forming in the liver, where the patients were under the satisfactory effect of mercury.

The author very candidly acknowledges that the treatment, in this case, was too inert, especially in the beginning. There can be no question that this was a case of simple dyspepsia, or morbid irritability of the mucous membrane, at the commencement, passing ultimately into chronic inflammation. Had this patient been placed but on the mildest farinaceous food, reduced to the quantity that could be taken without pain or other uneasy sensation, and every thing stronger than water prohibited, she would have got well, without any medicine whatever. Even when chronic inflammation was established, as it was most unequivocally, the same plan of diet would have been the main item of cure. Leeches and counter-irritation should then be *weekly* employed, and mild anodynes, especially hyoscyamus with minute doses of blue-pill, to keep the secretions in order, should be given at intervals of not more than six or eight hours.

Many are the cases in which *irritation* passes into *inflammation*, from the want of attention to diet, and from the injudicious use of tonics and stimulants. But the practitioner, it must be owned, has not often such influence over the patient as to enforce the proper system of diet. The case related conveys a very instructive lesson, and it would be well if patients could be more sensible of the danger they run in the indulgence of their appetites.

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83. COMPOUND DISLOCATION OF THE ANCLE-JOINT.

A very bad case of this kind lately occurred in the hospital practice of Mr. Tyrrel, and was treated successfully. A man of middle age had his foot caught under the gate of the swing-bridge in the London Docks; by which the ancle-joint was dislocated, and the integuments lacerated so as to expose the joint. The tibia protruded two inches or more, and was fractured across, the extremity being separated from the rest of the bone. The other structures about the articulation were much injured. The fibula was also fractured at some distance from its lower extremity.

Mr. T. removed the separated portion of tibia, and reduced the dislocation, bringing the soft parts together, as well as he could, and retaining them in coaptation by proper dressings. The limb was then laid, with the knee bent, in a hollow splint, an other short splint being placed along the inside of the leg. Evaporating lotions were applied. The febrile excitement was not great; and, although some sloughing took place, suppuration was established, granulation ensued, and the man did well.—LANCET.

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84. SLICING STRUCTURE IN QUEST OF FUNCTION.

We are not among those who decry experiments on living animals; but we think the attempts which have lately been made, and so often repeated, of slicing and cutting the brains of animals with the hope of detecting the functions of its different parts, are hardly justifiable by the prospect of any advantage that may thence result. Dr. Hertwig, of Berlin, has carried on these experiments, of late, very freely; and the only thing curious that we can see in them is, that, if experiments on hens, pigeons, and rabbits, can determine the localities of the mental faculties, or the seat of the soul in the brain, the phrenologists are all in the wrong. He concludes, that the hemispheres of the cerebrum are the "*true seat or the central point* of all the perceptions, of consciousness, of understanding, and the will"—that these powers of the mind and of the senses have a *common seat* in the hemispheres - and yet that "the consensus communis is not dependent on the hemispheres alone, *since it remains after they have been destroyed.*" If this be not converting the obscurum into *obscurius*, we know not what is!

Dr. Hertwig will be a stumbling-block to the materialists—for if the faculties remain after the brain is destroyed, we need no farther argument for the immateriality of the soul!

55. MR. ABERNETHY ON SPINAL DISEASES.

Mr. A's lecture on this subject, as reported in one of the late numbers of the Lancet, contains some opinions and practices which deserve a few comments.

Mr. A. dislikes the "*genteel*" term *concussion*, as applied to the spine, because it merely conceals our ignorance; and he, therefore, gives it the more scientific appellation of "*jarring*," which, in our humble opinion, adds nothing at all to the elucidation of the accident. Mr. A. believes that dislocation, without fracture, can only take place in the cervical portion of the spine. He says we can not reduce these fractures, for if we pull at the spinal column, for the purpose of extension, we may "*jerk the medulla spinalis asunder*." He, therefore, advises his pupils to keep the parts still. Most of these cases are dangerous; but our lecturer gives us the pleasing consolation that he has seen "many cases of recovery, even where the fractures were in the neck." Mr. A. has certainly been much more fortunate, in this respect, than his neighbours. He relates the case of a medical student, who fell into a gravel-pit, and fractured the spine, about the middle of the dorsal portion. In two months, he was so well as to be able to sit up and play cards, &c. but all below the fracture was completely dead. Mr. A. does not condemn the operation of trephining the spine, as practised by Mr. Tyrrel, but thinks it should not be attempted till all symptoms of inflammation have subsided—the same as in cranial fractures, with depression and compression. Now, if we wait till the symptoms of inflammation have subsided, it will be too late to save the spinal marrow from compression; and, therefore, if the operation is to be attempted at all, let it be done before the inflammation begins. It appears that Mr. A. did actually propose such an operation himself.

On distortions of the spine, Mr. Abernethy is, as usual, very droll. He says these "are not diseases but deformities;" yet in the same column he informs us that "he does not see these curvatures happening, *except where there is some constitutional disorder*." If this be the case, there surely must be some connexion between the constitutional disorder and the spinal curvature. Particular postures, then, can not be the sole cause of these deformities, since such postures are assumed occasionally by all young people. The fact appears to be, that the spinal column and its muscles partake of the constitutional disorder, and give way under postures or habits which, in perfect health, would produce no distortion. The whole therapeutics of the Lecturer may be comprised in a single line—*alternate rest in the horizontal posture, and active exercise*. Where there is anterior or posterior curvature, dependent on diseased vertebræ, rest without exercise must, of course, be enjoined. In these precepts the novelty is not of the very first order; yet they are made to cover a vast quantity of paper in the pages of the Lancet.

56. TREPHINE, IN INJURIES OF THE HEAD.

We have observed a paper in the New York Medical and Physical Journal for March 1820, which, as it bears upon the subject we discussed in Art. 5, of the Periscope of this number, we shall notice here. It is a case of epilepsy, after fracture with depression, cured by trephining.

Case. Mr. D. æt. 46, received, in the year 1811, a blow from a bar of iron, which wounded the scalp and fractured the frontal bone. He was taken to the hospital, but there were no *symptoms*, and he was not trephined. In a few weeks he left the hospital quite cured, but epileptic fits, after a short time, came on. At first there were considerable intervals between these accessions, the latterly he had two or three in the day. When Mr. Rogers, the narrator of the case, saw the man in 1825, he was almost idiotic—had a voracious appetite—and complained of pain over the left superciliary ridge of the frontal bone, where there was discovered a large cicatrix and "a depression sufficiently large to admit the extreme point of the finger." The pain extended down the neck and left arm; the eye of that side was diminished in size, and its vision much impaired; the memory was almost destroyed. Under these circumstances, Mr. Rogers determined on removing the depressed bone, and on the 7th July, 1825, with the assistance of Professor Mott and Dr. Ring, he proceeded to apply the trephine. The operation however was difficult, in consequence of the saw having to pass through the upper part of the frontal sinus, and, unfortunately, the dura mater was cut through for one half of the circumference of the circle. A portion of the internal table was found to have been fractured, separated from its attachments to the frontal plate, and driven back upon the substance of the brain. All went on well, and there was no return of the fits until the 25th day, when, in the absence of the nurse, the patient overloaded his stomach with food. A fit, almost like apoplexy, was the consequence, and this was followed by a severe inflammation of the brain. This was checked by active depletion, and on the 20th August, he was discharged cured. Nine months afterwards he had had no return of the fits, and his memory had almost recovered its strength.

Mr. Rogers has appended to this case some observations which prove him a stanch anti-trephinist. He says, that, in simple fractures with depression, antiphlogistic treatment alone will be found for the most part sufficient, and in this, perhaps, he is right. But he next attempts to subvert the distinction, which Sir A. Cooper has so ably elucidated, between simple and compound fractures of the cranium; and in this we are sure he is wrong. The mode in which he controverts this position is singular enough. He says—"the only difference in the two cases proceeds from the bone—in one case being exposed to the air, while in the other it is covered by the integuments." This is the only difference to be sure, but it makes a vast deal of difference for all that. If the symptoms arose from mere compression, as we have again and again observed, then perhaps this *only* difference would be but a trifling one; but since they arise, for the most part, from irritation, and since *we know* that the exposure of the parts naturally excluded from it, is a great source of irritation and inflammation, so we can easily account for this *only* difference being a most material one.

One of the arguments Mr. Rogers brings against the trephine is the stale [illegible] doing well without it. No doubt many patients, with severe [illegible] will do well without the use of the doctor at all; but the doctor [illegible] notwithstanding. In fact we think this a most [illegible] not on exceptions that we are to ground the [illegible].

Mr. Rogers [illegible] two cases of compound fracture of the cranium with [illegible] which active depletion alone conducted to a complete re-[illegible].

[illegible] the fracture was on the right side of the frontal bone, and the [illegible] from the circumference. The patient lost by the lancet 101 [illegible] in the course of six days.

A case of extensive fracture of the cranium occurred lately at St. Thomas's Hospital, and is recorded in the number of the Lancet for October, 21st. A boy, æt. 13, was brought into Hospital, Sept. 25th, having received a blow on the head from a falling pole two hours previously. There were some of the symptoms of concussion present, drowsiness, &c. but he could answer questions correctly. At and about the posterior and superior angles of the parietal bone, was a circular fracture three inches in diameter. The bones were divided into several portions, one of which was depressed full half an inch. The scalp above was puffy, but not wounded. Over the right frontal sinus the integument was torn in consequence of the lad's having fallen on that part. He had frequent retching, and vomited occasionally matters streaked with blood. The symptoms of compression not being present, Mr. Green, under whose care the boy was, determined not to operate. Five grains of calomel were taken immediately, and cold lotions applied to the head. V. S. ad ℥xij. 26th. The scalp had become much swollen. Pulse 40 and oppressed. Severe pain in the head---incoherence---V. S. ad ℥xvj. Five grains of calomel immediately---house-medicine---an enema. During the bleeding the pulse and the boy felt himself relieved. For the next two days, he continued much in the same state---there was occasional incoherence, but he could generally answer questions---the pulse was irregular, ranging from 48 to 60 and upwards. He was bled twice, and on the 29th was evidently improving—the pain in the head had disappeared—the skin was cool—the bowels had been freely opened, and the heaviness of the countenance was gone. On the 13th October, the patient was playing about the ward.

The reporter of this case seems to have thought it a mighty strange thing that there were no "symptoms" immediately after the receipt of the injury, but, perhaps, when he has seen a few more cases of fracture of the cranium, he will not consider the circumstance so very extraordinary. Now contrast this case with the one we have related in Art. V. of the Periscope, as occurring at another hospital, and we think that any unprejudiced person will allow the distinction of fractures of the skull into simple and compound correct. In this case the scalp was not wounded, and although the depression was certainly more extensive than in the other, the symptoms of re-active inflammation were by no means so violent. It will be said indeed, that in the former case the brain itself was injured, but experience tells us that if the foreign body, the bone, be removed, the mere wound of the brain is by no means necessarily fatal. The subject is one of such paramount importance that we shall, as opportunity offers, return to it again.

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57. SPASM OF CANALS.*

Since Dr. Monro's paper on this subject, published in the 3d No. of our junior Northern contemporary, and reviewed in our 10th Number, Mr. Allan has communicated to the author, two facts illustrative of the spasmodic power of the urinary bladder. The first was in a case of lithotomy, operated on about ten years ago, where one stone being extracted, and another found to exist in the bladder, the operator repeatedly introduced the forceps, without being able to effect his purpose. This arose, Mr. Allan avers, from the spasmodic contraction of the bladder, for, on introducing his finger he found the stone firmly held in its situation above the pubes, by the vesical spasm. The extraction was deferred till the evening of the third day, when it was

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* Dr. Monro. Additional Observations, &c. Ed. Journ. Med. Science, No. 4.

easily hooked out by the finger alone. The patient recovered without one bad symptom.

The next case was that of an irritable boy, three and a half years old, who was operated on, June 6th, 1826. Mr. Allan anticipated a spasmodic affection of the bladder, and, therefore, prepared the little patient by previous anodynes and aperients. A dose of laudanum was also given on the morning of the operation. Still the dreaded spasm took place. On introducing his finger, Mr. A. readily felt the stone, but whenever the forceps were introduced, "it *disappeared*"—or rather, we should say, *vanished*. This repeatedly occurred, and Mr. A. gave up the idea of extraction by metallic instruments, and managed by gentle means to hook out the stone by means of his finger and a small lever constructed for the purpose.

We have no doubt but that this spasmodic contraction of the bladder is sometimes the cause of embarrassment in extracting calculi From the facts before us it does not appear that precautionary measures, in the way of lessening irritability of the part, are to be much depended on. There is one comfort in Dr. Monro's doctrine—namely, that all difficulties in getting a stone out of the bladder, in future, can be conveniently laid to the charge of spasm. We all know that, in every house, there is a certain personage, better known to the servants than to their masters, whose name is "NOBODY," but who is the reputed author of every breakage, spillage, and mischief committed in the house, from January till December. This personage too, like the spasm of the bladder, is never seen, though very plainly *felt*, not only at the time he plays his pranks, but afterwards when the mischief is to be repaired. *Sat verbum sapienti.*

58. MR. LAWRENCE'S LECTURE ON RE-MODELLING THE MEDICAL CONSTITUTION.

This gentleman has discovered that no accurate line of distinction can be drawn between physic and surgery—and in this we agree with him. We also concur in his opinion that the education of the physician and surgeon should be the same in kind, though perhaps differing in degree—that is, that each should study, as far as his circumstances will allow, all the branches of medical science. On this point, we think it is impossible for men of observation or reflection to differ, unless they labour under a bias of their judgment. But when Mr. Lawrence contends that there should be no division of the healing art, whether as respects tuition, practice, or rank—we differ from him *toto cœlo*. Instead of the recent progress of medical science giving "a fatal blow" to the divisions of labour, either in teaching or practising, we see these divisions almost annually increasing; and we are really astonished how Mr. Lawrence can reconcile what he says in the lecture-room, with what he sees every day around him. What would be thought of the state of brain in that man who should open a lecture room in this metropolis, for the purpose of teaching anatomy, physiology, pathology, therapeutics, surgery, midwifery, botany, chemistry, materia medica, medical jurisprudence, &c.? He would soon be put under restraint in the New Bedlam. Did it never happen to strike Mr. Lawrence's mind that, if a gentleman, after studying all, should cultivate *one* of the above branches with more care than the rest, he might be able to teach that branch with more success? And if he looked about him, might he not perceive that the same observation applies to practice? Would any man (any general practitioner, for example) who had a child seized with typhus fever, dream of sending for Sir Astley Cooper to give his advice—or run past Sir Astley's door, in Spring Gardens, to summon Dr. Maton, if another child had

his leg jammed off by the wheel of a carriage? Or, if craniotomy was to be performed, would he despatch a messenger for Mr. Lawrence, notwithstanding that gentleman's very profound knowledge of the brain? No, verily:—and why? Because, although the student may take lessons from all the different teachers of the different branches of medical science, it is his experience afterwards which alone gives him *knowledge*, the former being *learning*, which is a very different thing. Now the man who lays himself out for one department, as for example, operative surgery, will have greater experience than others in that department—he will be more expert from experience—and he will *always* (till the end of the chapter) be sought after by the public, on account of his expertness. The same may be said of all other departments.

Medical science is too extensive for *all* its branches to be either studied or practised by one individual, with that minuteness and success which commonly attend the study and practice of a single branch. Every year this truth is becoming more and more conspicuous. Look to Mr. Bennett's lecture. There we find that *one* of the branches of medical science (anatomy) requires "a number of individuals, *each devoting himself to the cultivation of particular parts of it*," before perfection can be attained. For all practical purposes, then, there is sufficient distinction between physic, surgery, and midwifery, for the metropolis and every large city to afford practitioners devoted to one or other of these branches. Still, for general use, there must be general practitioners; but he who can study and practice *every branch* of the profession, and arrive at as much perfection in *all* these branches, as he who *only* studies *one* in particular, must have a genius equal to that of Mr. Lawrence himself, which, it will be, of course, acknowledged, is impossible.

Mr. L. expends a monstrous deal of wit in his dissection of the COLLEGE of PHYSICIANS, "instituted by a monarch more famous for lust than medical knowledge"—of that young whelp, the COLLEGE of SURGEONS, "fortunately for *us* entirely destitute of power"—and of that COLLEGE of APOTHECARIES, "who keep a shop for the sale of drugs." Like a true radical, he is dissatisfied with all existing institutions of this kind, and proposes the appointment of "an examining *body*," (in which *somebody* would doubtless take a leading part,) empowered to test all candidates for medical practice, "without any regard to the present artificial distinctions;" which examination "should authorise the individual to practice any or all parts of medicine, *and none should be allowed to practise without it*." Thus, then, according to this Utopian plan, the metropolitan physician and surgeon, and the village apothecary and accoucheur, must undergo the same examination, and consequently must have the same general and medical education! This is EQUALITY, with a vengeance! Now, if Mr. Lawrence had given himself the trouble to think for one small minute before he spoke, he would have perceived that such an equalization would place the necessary acquirements above the reach of a great proportion of general practitioners in the country—and that it would reduce the said acquirements to too low a standard for those who aspired to honors and distinctions in cities and in the metropolis. The consequence of such an attempt at equalization would be, a degradation of the upper classes of medical society—an exclusion of the lower classes—while it left the middling classes just where it found them. If the examination were at all impartial, and adapted to the wants of society, it must be calculated at a *medium* rate—and, consequently, it would be too low for the one extremity, and too high for the other. But the fact is, that Mr. Lawrence's scheme in medicine, is just what the scheme of Hunt and Cobbett is in society at large—EQUALITY. The one scheme is as feasible as the other, and both will be accomplished about the same period of time.

59. PUZZLING POINTS FOR A COURT OF CONSCIENCE.

It is well known, that all members of the Royal College of Physicians, fellows and licentiates, take an oath not to derogate from the honour of the College by any word or act on their parts. In the recent paper-war respecting the Hunterian Museum, a fellow of the College has charged a licentiate with violation of his oath, in daring to *censure a censor*, while the latter was in the execution of his *public duty*. The licentiate repels the charge, averring that, as a public journalist, it was his duty to criticise the public conduct of men in office; and he moreover charges the fellow of the College with a much greater derogation from the honor of the College, by not only publishing letters in the Radical Press, but publicly acknowledging himself to be an *anonymous writer* in that vehicle!

We understand the Bench of bishops are to decide this knotty point. In the mean time, we may be permitted to observe, that we have not met with an instance of such daring intrepidity, on record, since the descent of Orpheus in search of Eurydice, as has been evinced by a fellow of the Royal College of Physicians, venturing his name in the pages of the Radical Press. We think we may assert, that the gentleman in question, who has otherwise deserved well of his brethren, will never again degrade himself, by communication with a press which openly avows hostility to every established order of things in the profession.

60. EXHUMATION—FUMIGATION.

In consequence of the great scarcity of *subjects*, and the important discovery of Labarraque, respecting chloruret of lime, as a disinfecting agent, a joint-stock-company has been formed, for the exhumation of all those dead, the term of whose patent coffins has expired. The experiment has lately been tried, with great success, by the new company, on the body of the late Mr. J. C. Saunders. The exhumation and *post mortem* investigation lasted upwards of six weeks; and was conducted with the greatest *sang froid* by the company's resurrection and dissection men. We understand, however, that, notwithstanding the power of the chloruret, the offence against the sanctuary of the grave appeared to the bystanders to be "rank, and smelled to Heaven." The company are sanguine in the hope that TIME and HABIT will reconcile the olfactories of its customers to these "unsavoury suits."

61. NEW REGULATIONS OF THE COLLEGE OF SURGEONS.

In our last Number we published these regulations, but had not time for any observations on them. This defect has been amply supplied by the Radical Press, which seems to have exhausted every term of vituperation on the new regulations. We do not wonder, however, that the press should be in a passion, when such men as Cooper, Abernethy, Cline, Home, Guthrie, &c. are conspiring to rob the Radical Press of a portion of its daily bread.

"We will not say that they are rogues by nature, but do not hesitate to assert, that their proceedings are characterized by a most roguish aspect. A thief at the Old Bailey would act in a manner precisely similar."

To this mild and courteous remonstrance are added some choice epithets; as, "corporate tyrants"—"gross injustice"—"deeds of infamy"—"acts of cowardice and meanness"—"floundering imbecility"—"slippery reptile"—"maggots of hospital corruption," &c. &c. &c.

After this exquisite specimen, which shows the Augustan age of medical literature in which we live, we shall make a few calm observations.

We are not "toad-eaters," or "sycophants" of the College. The regulations that have been rescinded never had our approbation,—quite the contrary; but we can not put ourselves in a fury because we see the *liberal* portion of the cabinet prevail over the *illiberal*. That this ascendency may continue to gain strength is our sincere wish; and we rejoice at this unequivocal indication of such ascendency.

That item of the new regulations which requires attendance on two courses of anatomical lectures, and two courses of dissections, *previously* to county hospital time being allowed, is designated as "most diabolical." These are hard words; but then we must make allowance for the intense morality of the Press. "Will any prudent parent," says this exemplary monitor, "allow his child to be on the pavé of this metropolis without a protector, at the age of fifteen or sixteen?" This reminds us of the soldier's anxiety for the safety of the church, in Goldsmith. What dreadful risks must the youth of 15 run, in this metropolis! He may be allured to his ruin by some warbling syren—or transformed into a hog by some enchanting Circé—or, what is far more likely, he may be MACADAMIZED while crossing some public thoroughfare in his way from one lecture-room to an other!

None of these things can possibly happen when he has attained the mature age of 19 or 20. But as hospital practice is only a counter-part of private practice, and as many people have thought that some knowledge of anatomy, and some acquaintance with the principles of surgery, were absolutely necessary as preliminary steps for seeing, with advantage, the one, or acting with safety, in the other, we venture to say that, not only the *county* hospital time, but the metropolitan also, should be *subsequent* to a certain attendance on anatomical and surgical lectures. It would be a most edifying sight to behold a youth of 18 or 19, coming up to town with certificates of his hospital education complete, before he had performed a single dissection, or attended a single lecture! We would recommend, on the contrary, that the youth should be kept at his general education till he is 17—that the next two years be dedicated to the acquirement of pharmaceutical knowledge—that one year's study of anatomy and surgery, at least, should precede his attendance on hospitals—and that the choice of hospitals, whether in town or country, be guided by the circumstances of the individual.

62. IRON BLISTERS.

Sir Anthony Carlisle has invented a new mode of metallic blistering, which he considers to be superior, cheaper, quicker, and, on the whole, less painful than the common mode of proceeding with the emplastrum lyttæ. The process consists in immersing a piece of polished iron in boiling water, for five or six minutes, and then applying it to the part which is to be blistered, interposing a piece of wetted silk. The hot instrument is to be kept on the part for three or four seconds. The pain is considerable—an inflammatory process is set up—serum is exuded—and the cuticle detached. We do not deem ourselves justified in hazarding any opinion on the comparative merits of this mode of blistering, as we have not yet put it to the test. It may be useful in hospital practice, and in private life, where great despatch is desirable. We do not apprehend, however, that it will ever come into general use in private practice, on account of the prejudices which are entertained against instrumental operations—in short, against

> ——— the perils that environ
> The man that meddles with *hot* iron.

63. IMPORTANT ANATOMICAL DISCOVERY!

Two columns and a quarter of the LANCET are occupied with a most profound inquiry, "Whether the thumb has a metacarpal bone and two phalanges, or *no* metacarpal bone and three phalanges?" After ransacking a host of authors, from *Aristoteles* (who was a great anatomist in his day) down to Blumenbach, it is at length determined that the thumb is the longest as well as the strongest finger of the hand, although it disdains to walk upon stilts, like its four ambitious neighbours.

64. NEW PATENTS.

The Radical Press Company have obtained a patent for VITUPERATION, and are determined to prosecute with the utmost rigour of the *Law*, all those who dare to invade their property.

65. NON-JURORS—RETARDATION OF MEDICAL SCIENCE.

A luminary of the Radical Press, a *soi-disant* fellow of the College of Physicians, has discovered that the great impediment to the march of medical science is the subscription to the 39 articles of the Church of England, enjoined by the College on its members. He, therefore, calls upon the medical profession to rise, *en masse*, "physicians, surgeons, and apothecaries, either to establish a *new* and more liberal College of Physicians and examiners, or to ameliorate and rescind the offensive regulations of the old one." The Radical Press has unquestionable power to *call* spirits from the vasty deep.—But, query, *will they come?*—Nous verrons. There may be defects in the College of Physicians, as in all other human institutions: but, Heaven defend us from the democracy of the Medico-Radicals! There is little danger, however, that these gentry will be listened to, either in or out of Parliament.

Non tali auxilio, nec defensoribus istis,
Tempus eget.

66. PREGNANCY COMPLICATED WITH HYDATIDS.

Dr. Thuillier, of Amiens, has published a case of this kind, in a late No. of the Journal General, of which we shall give a brief abstract in this place.

Case. Mad. Hec.—aged 40 years, had been plunged in misery and distress, from her own bad conduct, for some years. She was subject to attacks of lypothymia and vomiting after eating. For four months the menses had been wanting, and it was supposed she was pregnant. Dr. T. examined, but could not decide on this point. The woman herself, who had borne nine children, did not consider it as pregnancy. She believed, from the vomiting after food, that she laboured under scirrhus of the stomach, of which complaint her mother had died. Low diet and diluents were prescribed. There was now developed much irritation about the uterus, and leeches were applied to the groins and vagina. The irritation was removed. The stomach complaint was now much relieved. A month or more after this, our author was hastily summoned to Madame H. who was said to be in labour. The uterus was now much larger than when last examined, and seemed to fill the pelvis. There were bearing-down pains, and in these, the uterus felt very turgid. The os uteri, however, was close, and no discharge from thence. The pains persisted, without any alteration in the cervix or os uteri. This state continued three days more, when it was perceived that, at each bearing-down pain, there was some discharge of clear water. This was followed some days afterwards, by a large number of hydatids, of various sizes, from an inch in diameter downwards. She continued to pass these bodies for fifteen days. In the mean

time the size of the uterus rapidly increased, and rose out of the pelvis. It was now ascertained that there was a fœtus in utero, and yet the hydatids were discharged daily in considerable quantities. Three or four months after this, she was delivered of a child at the full term, the hydatids having never ceased one day to be discharged. There were one hundred and forty-eight of these bodies collected, and the number broken and unobserved could not be estimated. The patient recovered and did well. She has since become pregnant.

67. CURE OF PHTHISIS BY MERCURY.

Our readers will be able to draw their own conclusions from the following case.

A young man, a West-Indian, 25 years of age, had suffered severe attacks of pulmonic inflammation, for which bleeding and other antiphlogistic measures were employed. After this, symptoms of phthisis were developed in a very unequivocal character, when he came under the care of Dr. Dufau, of Mont de Marsau. The symptoms need not be detailed here. The principal were copious purulent expectoration—hectic fever—perspirations—difficulty of breathing—pain in the chest—emaciation to an extreme degree. The right side of the chest emitted a very dull sound on percussion. In this condition, symptoms of constitutional syphilis appeared, and determined Dr. Dufau to put the patient on a course of sarsaparilla and the oxymuriate of mercury, as his case could hardly be rendered worse. In the course of a month, the phenomena of phthisis gradually subsided, and the young man was ultimately restored to complete health. The sound of the right side of the chest became as clear as that of the left.

The author comes to the conclusion that the phthisis, in this case, had something special in it—in short, that it was of a syphilitic character, and that, on this principle, the cure was effected by the sarsaparilla and oxymuriate.

68. NEW OPERATION FOR PILES.

Dr. J. C. Rousseau has proposed, in one of our American contemporaries, a new mode of removing those fungous excrescences around the anus, which are occasionally found to exist when piles have become permanently protruded, giving rise to troublesome ulcerations, hæmorrhage, fistulæ, &c. The mode of removal proposed by Dr. R. is by a multiplicity of ligatures, between each of which only a small portion of the excrescence is to be included. For this purpose, he arms a needle with two different coloured threads, and then thrusts it through from the verge of the anus to the outside of the tumour, and again from this side to the former, and so on alternately until the whole bulk has been stitched all around, observing between each passage of the needle to keep a distance of about one-third of an inch, on the outside, and much less on the inside. When this process is finished, (leaving a loop of ligature loose at each pull of the needle,) the ligatures are to be divided in the loops, and then each tied to its corresponding branch. By this means the whole mass, without any intervening portion, is enclosed in ligatures.

We can not but consider this as a tedious and somewhat difficult process, and moreover unnecessary. For where old piles are thus consolidated into external fungous excrescences, there can be little danger in removing them by knife or ligature. This, however, is not the opinion of Dr. Rousseau, and to him we must bow. At all events, this mode of operation will not do for the more difficult and dangerous removal of piles which come down only occasionally, and which are of far greater detriment to the patients' health and comfort than the external tumours.

69. FRACTURES OF THE CERVIX FEMORIS.

To the strong phalanx of cases brought forward by Sir Astley Cooper, proving the want of bony union in cases of fracture of the cervix femoris within the capsular membrane, Mr. Mayo has lately added another. A woman, 50 years of age, had a violent fall on her hip. The limb was not sensibly shortened, but was rendered useless. Pain and swelling succeeded, and she was confined to her bed for five months, when she regained some degree of strength in the injured hip, and gradually became enabled to walk, with the assistance of a stick. Thirteen months after this accident the woman died of apoplexy. On examination, the case was found to have been fracture of the cervix femoris within the capsular ligament. "Union had taken place by means of an intervening layer of soft but tough substance, from two to four lines in thickness; in which, however, nothing like commencing ossification was detected."

For some speculations on the causes of this non-union, we refer our readers to the 6th number, of the Medical and Physical Journal.

70. INTERNAL STRANGULATION.

If dissection followed death in every case of what is called fatal enteritis, or obstruction of the intestines, several would be found to depend, not on inflammation, nor yet on accumulation in the cavity of the intestine, but on a mechanical obstruction—in fact, on an internal hernia. It is not long since we recorded a curious case of this kind, in the person of Mrs. Belzoni's servant and fellow traveller. Some cases are on record where the appendix cæci vermiformis had strangled a portion of intestine. Dr. Brown of Sunderland, has lately mentioned a case where "the vermiform appendix had contracted an adhesion to the mesentery, and thus formed a loop, or noose, by means of which, a portion of small intestine, about two yards in length, was completely strangulated." The symptoms resembled those of strangulated hernia; but, as there was no external tumour, bleeding, purgatives, enemata, &c. were properly employed. All means failed, of course, and the foregoing phenomena presented themselves on dissection. In this case, and in that also of Mrs. Belzoni's servant, gastrotomy would, in all probability, have saved life, if performed before sphacelus had taken place. But who will be so bold as to perform this formidable operation on the *chance* of there being a mechanical strangulation capable of liberation?

71. PHLOGOSIS OF THE RETINA.

It is probable that many cases of amaurosis depend on inflammation of the retina itself, as well as on affections of the optic nerve within the head. There are instances on record where the sight was suddenly lost, by this species of phlogosis, and as suddenly restored by proper means. Two cases of this kind recently occurred in Bartholomew's Hospital, and are reported from that institution. The first was a man who went to bed without any affection of the eye, but, in the morning, found the sight of the right eye much impaired, and, in a few hours more, almost entirely lost. There was some inflammation of the conjunctiva—the pupil natural—pain in the head and eye. He was bled *ad deliquium*, and had a cathartic of calomel and jalap. After the operation of the medicine, he was directed to take calomel and opium every six hours. Next day, he was bled locally from the temples, and in another day he could read the smallest print.

The other case was nearly similar but of longer standing, and required, besides the sanguineous evacuations, some days' continuance of the calomel and opium.

In such cases the treatment should be prompt, otherwise the delicate structure of the retina may be irrecoverably disorganized.—LANCET.

X.

EXTRA-LIMITES.

I.

MR. LIZARS' OBSERVATIONS ON LITHOTOMY.

TO

The Editor of the Medico-Chirurgical Review of London.

SIR,

Although, probably, more has been written on lithotomy than on any other surgical operation, yet, judging from the writings of our *most learned modern physicians and surgeons*, we seem to be still ignorant of its fundamental principles. I am led to these observations by two papers lately published, by Dr. Monro and Mr. Allan, in the 3d and 4th numbers of the New Edinburgh Journal of Medical Science, in which I am *obscurely* alluded to.

In the 3d number, Dr. Monro states, " Mr. Allan informed me, that he had met with an instance, in which there were two stones lodged within the bladder. One of these was readily removed by the forceps, but the other could not be extracted at the time : it, therefore, occurred that, as the groping for a considerable time with the forceps in the bladder proves extremely dangerous, it would, at the moment, be more prudent to desist from further attempts to extract the stone, which was then firmly grasped by the contracted portion of the bladder, and that the stone would probably come away of itself along with the urine, in consequence of the subsequent relaxation of the contracted part of the bladder."

In Number 4, the Doctor says, " since the publication of my observations on spasm of the passages for the food, the bile, and the urine, I have received the following *important* communication from Mr. Allan, surgeon, which affords a striking illustration of the spasmodic power of the bladder of urine. I WAS PRESENT AT THE OPERATION to which Mr. Allan has alluded, in the performance of which, the dexterity of the operator was no less conspicuous than his coolness and sound judgment.

IMPORTANT COMMUNICATION.

'*Letter from* ROBERT ALLAN, Esq. F.R.S. E. *Surgeon to the Royal Infirmary, and Lecturer on Surgery in Edinburgh, to* ALEXANDER MONRO, M.D. F.R.S. E. &c.

'57, *York Place, June 20th*, 1826.

'DEAR SIR,

"You will no doubt *recollect* of having been *present*, ten years ago, at an operation of lithotomy, performed by a *young* surgeon, on which occasion I acted as HIS PRINCIPAL ASSISTANT. The bladder was soon cut into, and a stone of some magnitude readily extracted; but we were conscious of the presence of another stone, although the operator, after the repeated introduction of the forceps, failed to extract it. The difficulty of extraction arose from the bladder spasmodically contracting upon the stone, and thus preventing the forceps from coming into contact with it. I introduced my finger into the wound, and felt a stone above the pubis, (*pubes*) which was firmly held in this situation by the spasmodic contraction of the bladder. I could just reach the stone, and turn it round and round, but my finger was too short to dislodge it. As the *operator was not provided with a lever, or with curved forceps*, I ADVISED that the patient should not be kept longer upon the table, but that he should be put to bed, and that, as the opening was free when the spasm of the bladder was relaxed, and suppuration established, there was little doubt but that the stone would be easily extracted; whereas, by persisting in fruitless attempts to extract, the patient would be so much exhausted, that his danger would be thereby greatly increased. The patient was, therefore, laid in bed, and when I went to visit him, along with his surgeon, on the evening of the third day, I introduced my finger into the wound, and hooked out, with the utmost ease, a stone about the size of a turkey-bean, (*French or kidney bean, phaseolus,*) which was lying in the inner opening. The patient recovered without one bad symptom, and *this operation I have frequently revolved in my mind, and kept the case in view, as a guide in similar circumstances.* Quære. When the incisions are free, and the *delivery* (extraction) of the stone prevented by the spasmodic contraction of the bladder, as this will not relax till the patient is exhausted, and brought into danger, *is it not the preferable practice to put the patient to bed, instead of employing force, or persisting in fruitless attempts at extraction?* I am, &c.

ROBERT ALLAN.'"

Now, Mr. Editor, what are we to think of the state of the surgical profession in this learned medical city, when we find

the Professor of Anatomy and Surgery, and the *first operator* to the Royal Infirmary and *Lecturer* on *Surgery*, so ignorant of the history of lithotomy, as, from the preceding communications, we must hold them to be? What must these gentlemen have taught for upwards of twelve years to their pupils, and into what dilemmas must many of their pupils have been brought, when performing this operation? The practical rule of not attempting beyond a few minutes to extract a calculus, is laid down in most distinct terms by Celsus,* by Albucasis,† by Franco,‡ by Fabricius Hildanus.§ It appears unnecessary to give any more lengthened quotations than those we have inserted below; let it suffice merely to mention the other authorities,—Covillard, Obs. Iatro-chirurgique, Observ. IV; Colot, Traité de l'Operation de la Taille, p. 178, 182; Saviard, Nouveau Recueil d'Observations Chirurgicales, Observ. CVIII also, Observ. XLIII.; Tolet, Traité de la Lithotomie, Chap. XVII. Louis, Journal de Medecine, T. LXXXI.; Haller, Bibliotheca Chir. Tom. II.; Mangetus, Bibliotheca Chir. Tom. I.; Heister's System of Surgery, Part 2, Sect. 5, Chap. 141; Camper, London Medical Journal, Vol. 10, Part 2, p. 182, 1789; Percy, Journal de Medecine, Tome LXXIX.; Deschamps, Traité de l'Operation de la Taille, Tome IV. Now, Mr. Editor, not one of these authors, with the exception of Celsus, is mentioned by Mr. Allan in his HISTORY of the operation of lithotomy in his folio work, entitled, "Treatise on the Operation of Lithotomy," 1808. Whether Mr. Allan means to arrogate to himself the

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* At si plures calculi sunt, singuli protrahi debent: sic tamen, ut, si quis exiguus supererit, potius relinquatur, si quidem in vesicâ difficulter invenitur, inventusque celeriter effugit. Ita longâ inquisitione vesica læditur, excitatque inflammationes mortiferas; adeo ut quidam non secti, cum diu frustraque per digitos vesica esset agitata, decesserint. Quibus accedit etiam, quod exiguus calculus ad plagam urinâ postea promovente, excidit.—*Celsus, Liber* VII. *Caput* XXVI

† Nec calculum extrahas, sæpe enim id perdit ægrotum; dein curato vulnus, et cum sanguinis post dies aliquot sedatur fervor, et locus putrescit, ad opus tuum redi, donec calculum extraxeris.—*Albucasis, Liber* II. *Caput* LXI.

‡ M'etant quelquefois advenu, que apres avoir tiré une pierre, le patient etoit tant debile, que je n'osoye plus entreprendre de le plus presser pour savoir s'il y en demeuroit point d'autres, craignant qu'il ne mourust entre mes mains. Or, ayant mis les appareils sur la playe, et bendé comme avons dit dessus je le l'essoye jusques à ce qu'il fust plus fort, et bien souvent ay trouvé que, enchangeant le premier appariel, on apprest, que la pierre qui estoit demeurée estoit sortie du tout dehors d'elle même.—*Franco, Traité des Hernies, Chap* XXXIII.

§ Atque ita consultius est, inquit, calculum frustulatim extrahere, quàm ægrum tanto dolore atque miseriâ opprimi, semperque è duobus malis minus est eligendum. Nullum addit dictus *Dn. Francus*, huc usque auctorem inveni, qui hoc modo lithotomium administrârit, sicuti reverâ multis mirum videtur, quòd æger, post factam incisionem, per quinque vel sex dies plus minùsve non attingendus, tum demumque calculi extractio instituenda sit. —*Fabricius Hildanus de Lith. Liber, Cap.* 16.

merit of this mode of operating by his *Quære*, or whether he is actually ignorant of the history of this operation, or both, requires no Œdipus to inform us. When I read these papers, I could scarcely believe that I was reading the conjoint production of two distinguished professors.

That the operation, "en deux tems," should be always kept in view by the operator, I have invariably stated to my pupils, for in no other way can we, in many instances, save the lives of our patients. I conceive that we ought never to perform the "operation premeditée en deux tems," but that we should perform the "operation necessitée en deux tems," or combine both. We should, therefore, be prepared with a perfect knowledge of both, and commence with the premeditated intention of leaving the calculus in case of necessity.

Mr. Allan uses the innuendo phrase "a *young* surgeon," as if youth was any disparagement to an operator. I should recommend him to read Lord Chatham's reply to Mr. Walpole in 1740, every word of which will make his grey "hairs stand on end, like quills upon the fretful porcupine," unless he is *not* "made of the same stuff, and cast in the same mould as other men are." It would be well for Mr. Allan were he young, that he might have time to learn the history of his profession. "Youth is the worthier age, for young men see visions, while *old* men *only dream* dreams." The youths who have just finished their career in the dissecting-room ought to operate in half the time of those, who have neglected the use of the knife on the dead body for thirty years, and who obstinately continue to do so. "The surgeon just come from the dissecting-room, is competent to all operations. They are dissections of sound and healthy parts."

Mr. Allan, in the next place, has the generosity to state, the "operator was not provided with a lever, or with curved forceps." Now, Mr. Editor, was it not the duty of the "principal assistant," an office which Mr. Allan seems to dwell upon with feelings of pride, (for he had not then even performed lithotomy himself,) to take care that every instrument was at hand before the operation was begun? With regard to his "*advice*, that the patient should not be kept longer upon the table, but that he should be put to bed," Mr. Allan surely does not mean the world to believe that *he* was the *first* who has given such an advice—he would not wish us to consider *him ignorant* that the same recommendation had been given by Celsus, and every author on lithotomy, with the exception of himself.*

* See Allan's Treatise on Lithotomy.

To crown this *correctly drawn-up case*, be it known to the medical and surgical world, that Dr. Monro, who has paid me the handsome compliment, that "in the performance of the operation, the dexterity of the operator was no less conspicuous than his coolness and sound judgment"—did not witness the operation—I repeat, Mr. Editor, that Dr. Monro never saw me perform this or any other operation. He was no doubt invited to be present, but after the hour appointed for the operation had expired, I commenced operating, (resolved never to sport with the feelings of the patient for the convenience of any gentleman,) and had finished the operation, put my patient to bed, and had left the patient's house, when Dr. Monro and a young gentleman appeared on the road advancing towards me. So much for the reliance to be placed on Dr. Monro and Mr. Allan's surgical cases.

I shall now briefly mention that, within these few weeks past, I have been again compelled to perform lithotomy "en deux tems," and have deeply to regret that Mr. Allan was not present, either in the capacity of my "principal assistant," or one of my "advisers." His elegant dexterous hand, and his profound historical knowledge of this operation, would no doubt have been of prodigious service!

While on a professional visit to Brechin this summer, I was requested, (on passing through Montrose) by Dr. Crab, to see a man who had been labouring under calculus for about six years, and who had been previously sounded by the Dr. so carefully, that he was confident of the presence of a calculus, and therefore requested me to operate (the Dr. himself having for some years past resigned the use of the knife.) At the recommendation of the other medical gentlemen of Montrose, the patient was removed to the hospital for the benefit of better light during the operation, and of superior accommodation for the man. He was a tall, large-boned person, somewhat emaciated, and upwards of 60 years of age. His bowels were opened by laxative enemata, or rather the rectum was emptied by laxative enemata, and soon afterwards he was carried into the operating theatre, when, after he was secured in the ordinary way, I filled the urinary bladder with tepid water, by means of a catheter, which instrument, both before the introduction of the water and afterwards, at once pointed out the presence of a stone. The catheter intended for this purpose should have an ox or pig's bladder mounted on the end, which may be termed the handle, in the same manner as is done with the common glyster-bag and pipe. The catheter should be inserted in the urinary bladder of the patient, with the pig's bladder in a flaccid

state, and then the tepid water ought to be poured into the pig's bladder, which is to be tied and gently squeezed, so as to distend moderately the urinary bladder of the patient. After sufficient water has been injected, which can be judged of only by the feelings of the patient, the catheter is to be withdrawn, and a tape tied round the penis a little below the glans. This method, when the irritability of the bladder of the patient does not prevent it, is superior to that of tying the penis some hours before operating, in order to accumulate the urine.

The staff was now inserted in the urethra onwards to the bladder, and given to Dr. Campbell, one of the surgeons of the hospital, who kindly assisted me. I then made a long incision through the skin and cellular substance, from the root of the scrotum, between the raphe of the perineum, and the ramus of the os ischii downwards, or coccygead beyond the anus and over the fibres of the gluteus maximus muscle. The second incision was more limited superiorly or pubic, in order to avoid wounding the accelerator urinæ and erector penis muscles, but equally extensive downwards or coccygead, so as to divide some of the fibres of the gluteus maximus muscle: in this second incision, the transversus perinæi muscle was divided. One or two scratches with the scalpel, held in the same manner as when making the first external incision, (for there appears no necessity for turning the edge of the knife upwards or pubic to the symphysis pubis, as directed by lithotomists,) easily enabled me to arrive at the membranous part of the urethra, and to divide the levitor ani muscle from this downwards to the bottom or coccygeal aspect of the wound, carefully avoiding the rectum. The point of the scalpel was then entered into the groove of the staff, (the latter of which was now held close up to the symphysis pubis, and at right angles to the axis of the brim of the pelvis,) and carried onwards so as to cut the membranous portion of the urethra, the prostate gland, and a portion of the urinary bladder, lateralizing the knife so as to pass between the termination of the ureter and vesiculæ seminales, and depressing the rectum with the middle finger of the left hand to prevent its being wounded.* The tepid water and urine flowing copiously from the wound, I inserted my left fore-finger into the bladder, laid aside the scalpel, and conducted the forceps into the bladder, and then withdrew the staff.

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* The scalpel is much the preferable instrument for the performance of this operation, as all are or should be, familiar with its use on the dead body, before undertaking an operation such as lithotomy. If the operator considers it too short, let him have one with a longer handle. The man

I at once felt the calculus distinctly at the fundus of the bladder with my left fore-finger, and easily touched it with the forceps in their shut state, but whenever I opened them over the calculus so as to seize hold of it, I found that the blades grasped the soft bladder which retained the calculus in situ. I then tried a scoop, but with equal want of success. I regret for Mr. Allan's satisfaction, that I did not use a "*lever* or *curved forceps*." After several fruitless attempts for five minutes, I resigned the forceps to Dr. Campbell, and after he had persevered for three minutes longer, I requested him to desist. I next untied the patient, put him to bed, and desired him to have an opiate. I now begged the medical gentlemen present to return to the operating theatre, when I explained the nature of the "operation en deux tems," and stated that when all action had subsided, and suppuration was fairly established, the urinary bladder would offer them no resistance, and that probably the calculus would be in the mouth of the wound, or at all events, that it would be easily reached and extracted.

The operation was performed at 12 o'clock on Thursday the 5th of October, 1826, and as I had to proceed onwards immediately to Edinburgh, I begged that the patient should be bled whenever reaction had taken place, being of opinion, that after lithotomy, as after the operation of trepanning, venesection should be performed. The same precautionary means ought to be employed in all great operations. I mentioned that the calculus ought to be removed on Sunday or Monday, or whenever suppuration was fairly established. On Monday the 9th, a calculus of an oval flattened shape and weighing three ounces and a quarter, was extracted with the forceps, a sound being previously inserted in the urinary bladder. By the last account which I received the other day, the patient was walking about, and the urine flowing along the urethra, and the wound nearly healed.

I have been thus particular in describing this case, as the steps deviate a little from those recommended by Mr. Allan and other authors on Lithotomy. I am decidedly of opinion,

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who uses Dubois' knife, or any other instrument, has given up dissection, and is therefore unqualified to operate. I should recommend such surgeons, to confine themselves to the routine practice of prescribing a dose of salts. "The passion of inventing instruments, so conspicuous of late years, originates with those who know not how to use the common instruments." In every dead body, with the exception of one, that either any of my pupils or myself have operated on for lithotomy, part of the vesiculæ seminales has been wounded. In one or two rare instances, the termination of the ureter has been cut. I believe that I may state, the operation has been done upwards of 100 times.

that had I persevered longer in attempting to extract the calculus at the time of the operation, I would have induced such a degree of inflammatory action, as would, in all probability, have destroyed my patient. For, as my late worthy preceptor, Mr. John Bell, observes, "I fear there are few modern operations free entirely from the cruelties imputed to the apparatus major"—which fact, I deeply regret to state, every student at this school too often witnesses.

Either after the first stage of the "operation en deux tems," or "en un tems," if we may use the phrase, I conceive that no flexible catheters or tubes or tents ought to be inserted in the wound, as practised by Colot, Le Dran, and others; for, as Mr. John Bell observes, "In the old way of lithotomy, they introduced a canula into the wound, ostensibly to prevent healing, but really because they could not heal the wound." If the external incisions are free, and no mangling has been inflicted, we have nothing to fear from the urine—no infiltration will take place. To show the absurdity of fearing such an event, let us consider what Le Raoues, a celebrated lithotomist, did, who operated by cutting on the gripe. He endeavoured *not* to make the external incision correspond with the internal one, in order that the integuments might act as a valve. And he plastered up the wound with eggs and flour. And he often cured his patients in five days.

I have already stated, that venesection should be practised after lithotomy, whenever reaction has taken place, for the purpose of preventing inflammation. But if this diseased action should take place, the blood-letting ought to be repeated to syncope, and if the patient is an adult, 50 or 60 leeches should be applied to the hypogastric region: if a boy of three or four years of age, from 18 to 24 leeches should be applied, and the external jugular vein opened, if one in the arm cannot be selected in consequence of its smallness. After the leeches have dropped off, the warm bath should be used, and if pain on pressing the hypogastric region still continues, a tobacco enema should be administered, and be repeated as often as necessity requires, and as soon as its nauseating and exhausting effects have disappeared. It ought to be regulated, so as not to produce vomiting. Besides the above remedies, diluent injections of warm milk and water should be used to the wound, together with anodyne poultices and fomentations, both to the wound and to the hypogastric region. The patient ought to be kept in the warm bath, until as ensible depleting or exhausting effect is produced. Blisters may be also used after the leeches.

JOHN LIZARS.

Edinburgh, 33 *York Place*, 10*th Nov.* 1826.

II.

MEDICAL JURISPRUDENCE.

MEDICAL DEGREES—ABERDEEN—ST. ANDREWS.

We have much pleasure in giving publicity to the following regulations of Aberdeen and St. Andrews, against which so much declamatory abuse has lately been discharged. If these universities adhere punctually to the regulations now enacted, all reasonable cause for reproach will be removed.

"'*Marischal College and University, Aberdeen.—Regulations respecting Medical Degrees.*

"'1. Every Person offering himself as a Candidate for the degree of M. D. shall, 1st. Produce satisfactory evidence of his possessing a good character, and of his having attained the age of twenty-five years; and, 2dly, shall lay before the Senatus Academicus, certificates of his having obtained the degree of A. M in this or some other University, after the usual examinations;* of his having attended courses of lectures on Anatomy, Surgery, Chemistry, Materia Medica, Theory and Practice of Physic, and Botany, in this or some other University, or celebrated School, under Professors or Teachers of reputation; and of his having attended, for three or more years, a Medical Hospital containing the average number of at least eighty patients.

"'2. After the Senatus Academicus shall have been fully satisfied on the above preliminary points, the applicant shall be received as a candidate for the degree of M. D.; and shall be required to appear before the University, at one of their stated terms for granting such degrees, and in their presence be examined, by the Medical and other Professors, on the different branches of Medical Science—on his knowledge of the Greek and Latin Languages—and on such other branches of literature as they shall see proper. If fully satisfied with the qualifications of the candidate, the University shall confer on him the degree which he solicits.

"'By order of the Senatus Academicus,

"'JOHN CRUIKSHANK, *Secretary.*'"

"These are the only conditions upon which the degree of M. D. can now be obtained at Aberdeen; and it is presumed that henceforth the graduates of the universities there may claim the same rank as those of Edinburgh and Glasgow. The author of the 'letter,' &c. will at least acknowledge them equal to those of Glasgow; the regulations of their respective universities being *nearly* the same; what difference there is between them, is decidedly in favour of Aberdeen, as on looking over the Glasgow regulations I see no provision for testing the candidate's general acquirements.

"*Staffordshire, 21st May,* 1826. VINDEX."

"'*Regulations respecting Medical Degrees, appointed by the Senatus Academicus of the University of St. Andrews to be observed in all time coming.*

"'1st.—No degree shall be conferred on an absent candidate.

"* As this requisition, respecting the degree of A. M. might prove injurious to some Medical Students whose education is now in progress, were it to take effect immediately, it is resolved that it shall not come into full force till the year 1830."

"'2d.—The candidate must produce a satisfactory certificate that he is upwards of twenty-one years of age, and that he is of unexceptionable moral character.

"'3d.----The candidate, if he be not in possession of a diploma as A. M. must produce certificates of his having had a liberal and Classical Education, and be ready to undergo an examination as to his proficiency in Classical Literature by a committee of the University, or by the Senatus Academicus.

"'4th.----The candidate must produce certificates that he has attended in some University, or celebrated school of Medicine, for at least four complete sessions, during four years, the following branches of Medical Education, viz. Anatomy and Surgery; Practical Anatomy, or private Dissections; Materia Medica and Pharmacy; Chemistry and Chemical Pharmacy; the Theory of Physic; the Practice of Physic; Midwifery and the diseases of Women and Children; Botany, and Clinical Lectures delivered by Professors, or accredited Medical Officers, on the cases of the sick in a large public Hospital. (It is not meant that the candidate shall have attended more than two or three of the above-mentioned Medical Classes during one session.)

"'5th.—The candidate must bring certificates of his having attended the daily visitations of the Physicians and Surgeons of such Hospital for at least six months a-year during two different years.

"'6th.—If the candidate shall have so far satisfied the University, the rector shall be requested to fix a day for his examination by the Medical and other Professors on all the branches of medical science; and provided this examination shall satisfy the Senatus Academicus, the candidate shall have delivered to him a Medical case or cases with questions subjoined, which questions he must answer in writing, and defend his answers before the Members of the University.

"'7th.—The whole proceedings shall then be submitted to the consideration of the Senatus Academicus, and if they are satisfied, the degree of M.D. shall be conferred on the candidate by the rector in the hall of the public library.

"'Such are the regulations appointed by the University of St. Andrews to be observed in all ordinary cases When, however, the candidate, possessed of a Surgical Diploma from Edinburgh, London, Dublin, or Glasgow, shall have been in regular practice for some years, or when he shall have been appointed and have acted as surgeon in his Majesty's navy or army, or to the forces or ships of the East India Company, a three years' attendance on the above-mentioned courses of medicine, and one year's attendance on a public hospital, shall be deemed sufficient to rank him as entitled to be examined.

"'Farther, it is desirable that the candidate communicate by letter with the Medical Professor, and send him a list of the certificates he means to produce before he repairs to St. Andrews for examination. This may prevent disappointment, delay, and expense to the candidate.

"'8th.—The University reserves to itself the power to confer honorary degrees in Medicine on highly distinguished individuals, who cannot be expected to comply with the above regulations; but every such honorary degree shall be conferred unsolicited and free of expense.

"'*St. Andrews, 25th February*, 1826.'"

III.

HUNTERIAN MUSEUM.

Before making any remarks of our own, we shall lay before the public the two following circulars, transmitted to us with permission to make what use of them we please.

1. *Dr. Ager's Circular.*

The London Medical and Physical Journal for September last contained a letter from an anonymous Licentiate, complaining that the right of claiming admission, and of introducing Visitors to the Hunterian Museum, was restricted to the Fellows of the College of Physicians and the Members of the College of Surgeons; and proposing, that a remonstrance should be sent by the Licentiates to the *Trustees*, on the supposition, that they had made the regulation. The Editor of the Journal, Dr. Macleod, observed, "if this be correct, there can be but one opinion of the transaction;" and then demanded an explanation from the *Censors*. Having accidentally seen these remarks, I considered it my duty to point out the error at once to the President in a Letter, dated on the 13th of the same month. It was thought best to enable the Editor to correct the mistake through the medium of Dr. Chambers: who, on the 26th, wrote, that "Macleod wished to be entirely impartial on the subject of the Censors, and would have been very glad of any good answer to the Licentiate's letter;" and requested the Registrar, "if there appears to Sir Henry no objection to the publication of Dr. Ager's Remarks," to send them in the course of the day for that purpose. This was communicated to me, at the President's desire, on the following morning, with a request, that I would send an explanation to the Editor as soon as possible, lest the reputation of the College should suffer from continual misrepresentations remaining uncontradicted. I therefore wrote immediately to Dr. Macleod, observing, that such explanation from the Censors appeared to me "hardly necessary; for surely every liberal and intelligent person would conclude, that the regulation did not proceed from them: however, I can have no objection to its being stated on my part, that it was one of the original conditions, comprised in a Treasury-Minute, when the Museum was presented to the College of Surgeons, which the Trustees were merely appointed to see enforced." This Letter was published in the Journal for October, preceded on the same page by farther strictures on the conduct of the Censors, asserting a belief, that their "officious interference with the College of Surgeons," is "condemned by none more heartily than by the members of their own body;" calling in question "their taste and judgment in interfering in the business at all;" and yet insisting, that if they could have procured for the Licentiates the right of admission, as they have not done so, "nothing that has been said of them is too severe, and nothing that we have said is severe enough." Having drawn up the following statement of facts, in the accuracy of which the two junior Censors concurred, I thought it proper to show it to Dr. Frampton, as the charge unjustly implicated him also. He at once declared, that he entirely approved of what had been done; and candidly added, that if he had not, it was his duty to have attended the meetings, and opposed it. He also agreed with us in the propriety of submitting the whole matter to the President, since an imputation was thrown upon the College rather than

ourselves; and leaving it to his discretion to take any steps which he might think the interests of that body required on the occasion. This was accordingly done; and the President has replied through the medium of the Registrar, that "he thinks the statement perfectly satisfactory," and recommended its being made public. I have felt some difficulty about the best method to be adopted for that purpose. Of course, the London Medical and Physical Journal was entirely out of the question: but thinking it particularly important, that these transactions should be fully known to the Members of the College, I have determined to distribute a Circular Letter among them, and a few other friends.

JOSEPH AGER.

Statement of Facts.

When the Hunterian Museum was presented to the late Corporation of Surgeons, a Treasury-Minute of the Conditions was drawn up, and certain Trustees were appointed to see them enforced; among whom are the President and four Censors of the College of Physicians. The first condition is, that "the Collection shall be open four hours in the forenoon, two days every week, for inspection and consultation of the Fellows of the College of Physicians, the Members of the Company of Surgeons, and persons properly introduced by them; a Catalogue of the preparations, and the proper person to explain it, being at those times always in the room." The number of days of admission had been diminished, to give more time for proceeding with the Catalogue; and a general complaint was made among the Members of the College of Surgeons, that the Museum was not sufficiently open and useful to them.

At the Quarterly Meeting of the Trustees on the 6th of May last, there were present, the Duke of Somerset, Mr. Davies Gilbert, Dr. Ager, Dr. Elliotson, and Dr. Ramadge. The last Gentleman suggested to the Board the propriety of making the days of admission more frequent, in which all the other Trustees concurred; but it was thought advisable, that an extraordinary meeting should be called, and the Curators summoned to attend on the 20th May, to enable the Board to decide finally upon that subject, as well as the means of completing the Catalogue as soon as possible.

At this second meeting, besides the Trustees present at the preceding, Lord Colchester and Sir Everard Home attended; but the latter Gentleman withdrew on the introduction of the Curators. Arrangements were made for expediting the preparation of the Catalogue, and it was determined unanimously, that the original conditions should be strictly enforced.

At the next Quarterly Meeting, on the 5th of August, there assembled Lord St. Helens, Sir E. Home, Dr. Ager, and Dr. Ramadge. A communication was received from a Meeting of Members of the College of Surgeons, conveying their thanks for what had been already done; and requesting, that the times of admission to the Museum should be increased, and the Licentiates of the College of Physicians, as well as other respectable Medical and Scientific Persons, privileged to attend. These regulations had indeed been suggested to the Board by the Censors present at the former Meetings; but it was seen with regret, on referring to the original conditions, that the Trustees had no power to enforce them. The only arrangement then made respected the interpretation of the terms "properly introduced." A personal introduction had previously been required; but it was unanimously agreed, that a Letter should be thenceforth considered sufficient, and that the regulation thus interpreted should be communicated to those Gentlemen who had applied to the Board.

2. *Dr. M'Leod's Circular.*

To Sir Henry Halford, Bart.

Henrietta-street, Cavendish-square;
November 10th, 1826.

Sir,

Some public discussion having taken place with regard to the line of conduct adopted by the late Censors of the College of Physicians, in the questions which have recently been agitated in the College of Surgeons; and the part which I have taken on this occasion having been represented as disrespectful towards that body, of which I am a Licentiate, I take the liberty of soliciting your attention to the following observations.

On a recent occasion, a circumstance occurred at a meeting of the Trustees of the Hunterian Museum, by which the feelings of the Licentiates were hurt, as (till it was explained) it appeared to place in a conspicuous point of view the preference given to the Fellows. That the impression produced by this occurrence was of the nature I have stated, is well known; and several letters were addressed to me upon the subject, as Editor of a Medical Journal. One of these being more temperate than the others, I published, appending to it a note, in which I remarked that the letter proceeded upon the "assumption" that the Trustees had unlimited power to admit whom they pleased; adding, that I should like to hear what the Censors had to say in explanation. It is quite obvious that an opportunity was thus afforded to the Censors of conciliating the Licentiates, by explaining the circumstance which had given rise to the misunderstanding. A month, however, elapsed, but no communication was made; and it was not till the ensuing Number of the "Medical and Physical Journal" had been completed, and was on the eve of being struck off, that a letter was received,—not, indeed, from the Censors, but from one individual among them, who expressly stated it to be on his own part. This letter reflected on me as requiring what no "liberal and intelligent" person would have deemed necessary; but, as it seemed intended to explain the circumstance which had prevented the Licentiates from being, in this instance, placed on the same footing with the Fellows, I was induced to stop the press for its insertion; having stated in the preceding paragraph, that, if the Censors had not the power to grant what was desired, "no impartial person" would "blame them."

But, in the remarks alluded to, and which have given so much offence to the late Censors, I commented on the questionable policy of their interfering with the Hunterian Museum at all at such a time; because I regarded their co-operation with those Surgeons whose avowed object was the abrogation of the Charter of their College, as calculated to embroil the two corporate bodies, and therefore as injudicious; as contrary to all established etiquette in the profession, and therefore as in bad taste. And, I ask, in the event of public meetings being held by the Licentiates to overthrow the authority, and destroy the Charter, of that learned body over which you preside,—I ask whether, under such circumstances, it would not be regarded as a most ungracious act, were the Council, or any other officers of the College of Surgeons, to avail themselves of any influence their official situations might accidentally give them, and to volunteer their services on the side of the Licentiates?

But, so far was I from wishing to implicate the College generally in the disapprobation bestowed upon the Censors, that I expressly stated my remarks to be applicable to the latter "alone;" adding my belief that their interference at such a juncture was condemned by the members of their own body. This belief, which I still entertain, was founded on the information

of those on whom I could depend; and, for the honour of the College, I trust that the feeling is general.

It would obviously have been unfair to attribute an act of the Trustees of the Hunterian Museum, to the Censors of the College of Physicians, had not one of them thought proper to publish a full and circumstantial detail of what had passed at one of the meetings, thus claiming for himself and his colleagues the merit, and consequently entailing upon them the responsibility, of the part which they had taken in the discussions. This letter, as well as that signed "A Friend to the late Censors," appeared in the "Lancet;" a paper which few have had the boldness thus *openly* to countenance.

The writer of this anonymous letter asserts that my exculpation of the College, above-mentioned, is a "severe imputation" upon that body, and contrary to my obligation to do every thing "*in honorem Collegii*;"—that is, it is held up as a violation of my oath that I should presume to say that the Censors have acted injudiciously, or that any of their brethren think so. But, in order to make his case the stronger, he has given a quotation, with inverted commas, as my words; yet he has felt himself at liberty to alter and to strengthen the expression, converting the postulate "*we believe* to be condemned," into the simple asseveration "*is* condemned;" which, however, I regard as of no importance, farther than as it is an illustration of the spirit which pervades the whole.*

With a view to show that their conduct on this occasion was not disapproved of by the members of the College of Physicians, the "Friend to the late Censors" quotes the opinions of two individuals,—yours, Sir, and that of the senior Censor. With regard to you, we are informed that "a statement of their conduct" was deemed "perfectly satisfactory;" but, as no part of the statement is given, and of your answer, "written by the Registrar," only the two words above quoted, it is obviously impossible to know of what nature the statement was, or how far the approval extended. One thing, however, is quite clear, that a "statement" *was* deemed necessary; a circumstance at variance with the assertion of this writer, that he has heard "of no one besides Dr. Macleod who condemns them:" for I have not the vanity to suppose that my opinion would have been regarded as sufficiently important to induce the Censors of the Royal College of Physicians to draw up a "statement of their conduct."

If you, Sir, really deemed their interference with the affairs of an other corporate body, at a time when they were assailed by a disaffected party among themselves, "perfectly satisfactory," I can only regret that the opinion of so eminent an individual should in this respect be opposed to that of a large proportion of the respectable part of the profession But if it should appear (as I have *strong* reason to believe) that Dr. Macmichael

* This writer calls upon me to give him the names of those who condemn the conduct of the late Censors. Had I accused them, on the authority of others, of any immoral act, he would have had a right to make this demand; but, as the extent of my censure implied only a doubt of their absolute wisdom, it is too much to expect that I should obey such an unreasonable request. For me to do so would be to take dishonourable advantage of opinions expressed in the course of conversation: at the same time I am satisfied, from the character of the parties, that, were it of any importance for the Censors to be acquainted with their names, they would not be deterred from declaring themselves by the vapouring threat about exclusion from College offices, or from any dread of being regarded by this writer as "deficient in sense of moral obligation."

did not write *as Registrar*, and that the statement, together with the approval, had reference solely to the part which the Censors had taken with regard to the Licentiates, and to the circumstance of a Treasury-minute putting it out of the power of the Trustees to admit them on the same terms as the Fellows, then it will remain for the "Friend to the late Censors" to explain on what grounds he has taken upon himself to extend your satisfaction touching one particular point into a general approval of their conduct with respect to the College of Surgeons.

But the attendance of the Censors at the Board of Trustees of the Hunterian Museum is represented by their "Friend" as a point of conscience, touching which they "swore a solemn oath," and "publicly received the Sacrament." Now, Sir, if it really was so imperative a duty, and if they have done all this for conscience' sake, I cannot but think it a "severe imputation" upon you and Dr. Frampton, higher and senior officers, as well as men of more influence, to have absented yourselves from every one of these meetings, and left to the juniors the undivided honours of the whole transaction.

In the letter alluded to, it is acknowledged that the Censors were advised to send their explanation to the Medical and Physical Journal. Notwithstanding this recommendation, which sufficiently showed the channel which *you* regarded as most proper for its communication, the "Friend to the late Censors" selected the "Lancet!" a journal teeming with abuse of the College and its members; in which, accordingly, a document, but not the "statement," appeared the week after an illiberal attack upon that body, which I had absolutely refused to publish.

I fearlessly refer to the pages of the "London Medical and Physical Journal," as an index of my feelings towards the College of Physicians, and as the best proof that I have never endeavoured to create or to foster dissentions among men, whose mutual interest it is to avoid such unpleasant discussions. I beg, however, not to be misunderstood. I do not wish to exculpate myself from the charge of having censured the conduct of the late Censors, which as a public Journalist, and touching a public question, I had a right to do; but I do wish to rebut the accusation of having thereby deviated from the consistent line of conduct which I have throughout observed towards the College of Physicians as a body, and towards the profession in general.

I have addressed this letter to you, Sir, in the present form, because I have too high a respect for you, and too much regard for my own character, to think of giving it publicity through the same medium which the "Friend to the late Censors" has had the indiscretion to adopt: and I must say that I should, indeed, regard myself as deserving the "strongest reprobation," had I presumed to offer such an insult to the College of Physicians as I conceive him to have done, by selecting, as the channel of his communication, a paper, of which it would not become me to speak in the terms which it merits. Indeed when I consider the medium through which the letters in question have been published, I feel that some apology is necessary for noticing them at all; and I certainly should not have done so had not the circumstances under which they appeared given to them somewhat of an official form; the latter containing references to various papers, which has led to the belief that it proceeds from the late Censors themselves.

I trust that, in the foregoing remarks upon the conduct of the late Censors, which the circumstances have rendered unavoidable, I have not departed from that temperance of language and fair line of argument which Gentlemen ought to adopt towards each other: and in conclusion I beg to say, that I shall not be induced, by any consideration whatever, to prolong this discus-

sion. It would, indeed, be endless, were the Editor of a Journal liable to be drawn into a controversy with every one from whom he differed in opinion. Both sides of the question have now been stated, and those who feel any interest about it will form their own judgment on the subject.

I have the honour to be, Sir, your most obedient humble Servant,

RODERICK MACLEOD,

Licentiate of the Royal College of Physicians,
and Editor of the "London Medical and Physical Journal."

To Sir Henry Halford, Bart.
President of the Royal College of Physicians.

P. S. *(Saturday Nov. 11th.)*—I have just been informed that the anonymous letter, so frequently alluded to, has been acknowledged, in the Lancet of to-day, as having proceeded from one of the late Censors. I take this opportunity of stating that it is not my intention to read, and consequently that I cannot answer, any thing which may hereafter appear in that publication. R. M.

Remarks.

The above documents sufficiently explain the feelings, and set forth the arguments of the two parties. It would ill befit us to interfere, or give any opinion on the question, when every reader has the same data to ground his opinion on that we have.

In respect to the observations which we made on this subject, in our last number, we have but little to add. We distinctly stated that, "*we knew not how, where, or why this invidious prohibition started into existence,*" but that we had no hesitation in designating it a foul blot on the medical annals of England. We withdraw not one iota of the above sentiment. It is now clearly proved that the late Censors had no hand in originating this regulation respecting the admission of licentiates, and therefore they are absolved from all blame. That it was a *dormant* regulation, we appeal to the fellows and licentiates themselves. Did the *latter* require personal introductions from the *former?* We never heard of such a thing; and we can attest that we were never questioned as to our claim to admission, on proper days, in the character of licentiate. It is clear then that the treasury minute was a dead-letter till the late proceedings, when it was revived, unavoidably no doubt, with the other parts of the treasury minute which had not been complied with by the Curators. For this we do not blame the late censors, and are bound to believe that they did their best to rescind the regulation entirely.

But it becomes necessary to notice the letter of Socius, in the November Medical and Physical Journal. This gentleman alludes to the "unkind feelings" which are alleged by us as existing in the minds of the Licentiates towards the Fellows of the College. We never made any such assertion. We said that the marked degradation which meets the eye of the Licentiate, would be likely to transmute into open hostility what now exists in the shape of smothered indignation. This indignation arises from the state of *degradation*, (we repeat the word,) in which the Licentiate is placed by the anomaly of his situation, without any reflection on the Fellows of the College, who cannot alter the existing state of things. We ask Socius if the document produced by Dr. Ager does not prove the degradation of the Licentiate. The very government itself degrades him, by either not recognising such a being in the profession, or excluding him from a privilege ceded to every member of the College of Surgeons. If Socius will attempt to persuade the Licentiates that they have no reason in the world to be discontented,

with their lot, he knows little of human nature. Can a Blane, a Babington, a Philip, an Armstrong, and fifty others of this metropolis, proceed to the house of Socius, cap in hand, to ask *permission* to visit the Hunterian Museum, without feelings of smothered indignation? If they can, they are not men.

We have, on several occasions, exhorted every father in the British dominions, who has a son destined to practise as physician in England, and especially in the metropolis, to give him his classical and scientific education at Oxford or Cambridge, and his medical education in London, Dublin, Edinburgh, or Paris, as he may think fit. By this plan his son will become a Fellow of the College of Physicians, and evade the degradation of the Licentiate. This plan is also, in our opinion, infinitely preferable to any other, in every point of view. We *know* that our observations on this subject, on a former occasion, have produced a strong impression on the minds of those who are bringing up their sons as physicians.

But as the change which may be effected thus, in the proportion between Fellows and Licentiates, must be very slow, and can never entirely cure the invidious distinction which now exists, we think that an act of liberality on the part of the College, which would be perfectly compatible with the safety and stability of its charter, and eminently calculated to disarm the medico-radicals, while it cemented the bond of union among all the more distinguished physicians of the kingdom, is highly worthy of attention from the present enlightened president of the College. We mean an annual admission of a certain number of physicians (of other Universities than Oxford or Cambridge) who may have acquired the esteem of the public and the profession at large, by their probity, talents, learning, and medical science. Such a prospect or premium for merit would prove an unceasing stimulus to the whole body of physicians, while the annual influx of talent into the fellowship would soon render it the most distinguished College in Europe. No change, in our humble opinion, should be made in the path which now leads to the *right* of a fellowship; but the *grace* of admission should be liberal, and accorded *only* to merit. The parsimonious exercise of this prerogative, once in three or four years, towards an individual, is really calculated to engender jealousy and discontent, instead of emulation, hope, and concord, between the two classes of physicians.

IV.

PATHOLOGY AND TREATMENT OF CROUP.

Spreull's Court, Glasgow, 5th Oct. 1826.

Sir,—In reply to some remarks which you have introduced into your Journal for Oct. 1826, page 436, I beg leave to say, that I had neither seen nor heard of M. Guersent's Articles on Croup, nor of Dr. Bretonneau's Memoirs on that subject, when I published my remarks in the Edinburgh Journal for April, 1825. I have also reason to believe, that these authors and their opinions were quite unknown to those practitioners, who, in this town, first introduced the practice of applying lunar caustic in what was called *Sore Throat ending in Croup.*

As for the Pathological fact, that the fibrinous effusion in croup, at least in some cases, commences on the tonsils, and thence spreads to the velum, pha-

rynx, larynx, windpipe, and œsophagus, this was so strikingly the case in more than one fatal case which occurred under my own care, that I could not omit to observe it. The coincidence in pathology between Dr. Bretonneau and myself, has been purely the result of two individuals attending to the same disease, without any knowledge of the labours of each other; and of course it confirms the observations of both.

The coincidence in practice between Dr. Bretonneau and the practitioners in this town, who, some 7 years ago, tried lunar caustic in the *sore throat*, as it was styled, which so frequently *ended in croup*, is, I believe, as purely accidental; and also highly confirmative of the utility of this application of escharotic remedies. It was to these gentlemen I referred in my paper, when I stated that I had received this practice from others, in whose hands, as well as in my own, it had proved successful.

The following is the progress of my knowledge of the subject.

In 1812 or 1813, I had occasion to see two cases of what was called *Sore Throat ending in Croup*. They were under the care of the late Mr. Stenhouse of this town, and in one of them I repeatedly applied, under his direction, a strong infusion of capsicum to the tonsils, by means of a bit of rag mounted on a pencil. Both cases terminated fatally; and of course indelibly impressed my mind with the alleged fact, that *putrid sore throat* was liable to *end in croup*.

In 1819, the same disease prevailed very much in this place, and I had an opportunity of inspecting the bodies of several children who died of it.

In May, 1820, Dr. Thomas Brown read a valuable paper on this disease, in the Glasgow Medical Society, and related, amongst other cases, one in which the application of solid lunar caustic appeared to be successful in preventing the extension of this disease to the larynx. I afterwards understood that Mr. James Watson had found a solution of the same substance successful in one or more cases.

In 1821, this disease proved fatal to two children under my own care. In both, the fetor of the breath and the sloughy appearance of the effused lymph, were remarkable. In the first case, indeed, I was surprised, on dissection, to find the tonsils and uvula entire, and coated over only with an effusion; for I had laid my account to find a gangrenous loss of substance in these parts. My opinions regarding this *Sore Throat ending in Croup*, had till this period been wavering; but I now announced to several of my medical brethren, that what had been considered ulcers and sloughs in this disease were nothing else than effused lymph, the progress of which over the velum and uvula, and towards the alimentary and respiratory passages, I had distinctly observed.

In the 2d of these two cases, I called in Mr. James Watson, who applied the solution of lunar caustic, but without success. In two subsequent cases, however, (one of which was also seen by Mr. W. along with me,) having found the solution effectual in procuring the detachment of the effused lymph, and apparently in preventing the extension of the disease to the larynx, I judged that I ought not to allow a remedy, which promised to be useful in so terrible a disease, to remain unknown; and accordingly I published my remarks in the Edinburgh Journal. Whatever motives others might have to let their observations pass *sub silentio*, I had none; and, therefore, published what I thought, and what I had seen of this disease and of this mode of treatment, taking credit, no doubt, to myself for what belonged to me regarding the pathology, but ascribing to others the invention of the escharotic practice, without touching on the delicate question of priority. Notwithstanding this, a sort of an attack was made upon me in the Glasgow Medical Society, not by Dr. Brown nor Mr. Watson, but by a third person, as if I had wished to

appropriate other men's discoveries to myself. Notice of this attack was taken in a late Number of Anderson's Journal; it was there styled a reclamation.

It gives me sincere pleasure to think, that in consequence of your review of Dr. Bretonneau's Work, the pathology of this disease is likely to be more generally understood, and that a fair trial will be given to the escharotic treatment. Whether muriatic acid or argentum nitratum answers best, must be determined by experience only; but the facts that CROUP BEGINS ON THE TONSILS, and that BY ESCHAROTIC APPLICATIONS IT MAY BE PREVENTED FROM EXTENDING FARTHER, are of the highest importance, and can not now fail to attract the consideration of your numerous readers, and of the profession in general.

I am, Sir,
Your most obedient Servant,
W. MACKENZIE.

V.

QUALIFICATIONS OF ARMY MEDICAL OFFICERS.

Hospital Assistant.

The Candidate for this, the first appointment in the Medical Department, must be unmarried; not under twenty-one, nor above twenty-six years of age; he either must produce Certificates of having served a regular Apprenticeship, of not less than three years, (to a Member of the Royal Colleges of Surgeons, of London, Dublin, or Edinburgh, will be preferred,) and of attendance for one year at least, in an Hospital or Infirmary of celebrity; or if he has not served an Apprenticeship, he must produce Certificates of two years' attendance in an Hospital, with one on practical Pharmacy. He is to possess a Diploma from one of the Royal Colleges mentioned, and must exhibit Certificates of regular attendance on courses of study on the following branches of professional knowledge, at established schools of eminence, viz.

Anatomy	18 Months.
Practical Anatomy	12 do.
Chemistry and Practical Chemistry .	6 do.
Materia Medica	3 do.
Botany	3 do.
Surgery	6 do.
Theory of Medicine and Physiology .	6 do.
Practice of Medicine	6 do.

and of Clincal Lectures on the Practice of Medicine and Surgery.

It will be considered an additional recommendation to Gentlemen entering the Service, to have attended Lectures on
Diseases of the Eye, and on
Forensic Medicine,
and likewise Public Establishments for the treatment of Diseases of the Eye, and of Mental Derangement.

Gentlemen who have had an University Education will always be preferred. It is desirable that all should have studied Mathematics, Natural Philosophy, and Natural History; but a liberal Education, and a competent knowledge of the Greek and Latin languages, are indispensably requisite in every Candidate.

Assistant Surgeons and Surgeons.

With the above recited Qualifications, Hospital Assistants will be entitled to promotion as Assistant Surgeons and Regimental Surgeons; but every Gentleman must have served five years at least in the junior appointments, before he can be promoted to the rank of Regimental Surgeon. In addition to competent professional knowledge, the greater the attainments of Gentlemen in various branches of Science, the more eligible will they be deemed for promotion.

Gentlemen already in the Service, are earnestly recommended to avail themselves of every opportunity of adding to their knowledge, by attending Universities or Schools; for which purpose, every facility in his power will be afforded by the Director General. They are especially desired to transmit to this Office Statements of such Classes as they attend subsequently to their Examinations before this Board, either on professional or on other branches of Science, that the same may be duly registered here; and every Officer must be prepared to undergo further Examination before he can obtain promotion, or return to the Duties of the Service from the Half Pay List.

Physician and Surgeon to the Forces.

Medical Officers are encouraged to look forward to the appointment of Surgeon to the Forces, and of Physician to the Forces; and to endeavour especially to qualify themselves for either rank, according to the bent of their inclinations and to their previous studies.

It is expected that the Candidates for the Commission of Surgeon to the Forces, shall have attended a Public Hospital of celebrity at least two years; and it is desirable that one of them should have been passed at a London Hospital.

The rank of Physician to the Forces, requires in addition to the knowledge and experience to be gained in the regular progress of study and of Service, that the Candidate should be a Fellow or Licentiate of the Royal College of Physicians of London, or a Graduate of the Universities of Oxford, Cambridge, Dublin, Edinburgh, Glasgow, or, under the Regulations lately adopted by them, of the Universities of St. Andrew's, or Aberdeen.

Although the British Schools are specified, it is to be understood that Candidates who have received regular Education in approved Foreign Universities, or Schools, will be admitted to Examination.

In all the steps of promotion in the Medical Service of the Army, they who give the best proofs of diligent exertion in the performance of public duty, and of attention in the acquirement of practical knowledge, by taking every opportunity of adding thereto, will be regarded as the most eligible for advancement.

Army Medical Department.

Note. All Letters to be enclosed, *unsealed*, to "The Right Honourable the Secretary at War."

VI.

To the Editor of the Medico-Chirurgical Review.

Sir,—The name of Cuvier, and the well earned honours of Professor Dumeril ought, one would suppose, to protect these great men from being implicated by a nameless reviewer, in a physiological misrepresentation with so humble an individual as myself. They are, however, accused, in the

last Number of "the Edinburgh Journal of Medical Science,"* of abetting a theory built by "*we*" himself, and founded upon what he terms "*the sugescent power of 'the heart'—the suction of the lungs, &c.*"

This theory the critic condenses into seven propositions, and gives them to *his readers* as the deductions which I have drawn from my experiments.

Your readers will no doubt, be somewhat surprised when I assure them, that in six of these propositions I cannot recognize a single phrase as my own, nor one *pure* element of any of the deductions which I have made from my experiments,

My book is charged with asserting, that atmospheric pressure is the *sole cause* of the motion of the blood of the veins towards the heart, and the illustrious philosophers just mentioned, are charged with abetting this assertion. The critic manifestly mistakes their application of the word "uniquement," as completely as he has misapplied the loose calculation translated from Haller, by transferring it from the black blood of the pulmonary *orbices*, to the red blood of the pulmonary veins. This vague approximation, given by Haller, to show how little the pressure of the air can *impede* the current in the pulmonary *arteries*, is not corrected by our critic, by applying to it any of the lights which modern science and discovery have shed upon the problem to which it refers. Yet he very modestly terms it "*infallible*," and appends to his translation, Q. E. D.!!!

The names of Cuvier, Dumeril, and Laennec, men, whose contributions to science are destined to adorn the brightest pages of our intellectual history, should be respected. As to myself, the following short extract, will show how little "the elegant rotundity of my deductions," *squares* with the reviewer's six propositions. (The 7th relates to the cupping-glass.)

"From what we have seen in the memoir, and from what has been said in the supplement, it is evident, that in the quiescent living animal, the only demonstrable active powers employed by Nature to propel the contents of the veins towards the heart are,

"1st, The impulse given by the pressure of *the heart itself* continued *through* and propagated by the arteries. By this power the blood is sent into the situations where it can be most favorably acted upon by,

"2ndly,—Atmospheric pressure, diminished, or entirely taken off around the cardiac ends of the venous tubes, but left entire around every other part of their surface.

"3rdly,—Gravitation, &c."†

Had the misapprehensions of the northern critic been confined to myself, I should not have troubled you, nor the public with any notice of them. But when a man appears to build up a theory for the author whom he is reviewing; and when he gratuitously implicates in that absurd theory, three of the most profound philosophers of the age, merely to overwhelm them in the common ruin, by "*we*" and "our infallible calculation;" it would be allowing a stigma to remain on the literary integrity of the country, not to afford the learned reviewer an opportunity of making the "*amende honorable.*"

I am Sir, your obedient Servant,

D. BARRY.

7 Great Mary-la-bonne Street, Cavendish Square,
10th December, 1826.

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* Page 462.

† Experimental Researches, (p. 56 and 57.)

VII.

GLASGOW REGULATIONS.

Regulations respecting Degrees in Medicine and Surgery, in the University of Glasgow, as fixed by the Senate, 17th April, 1826.

Medicine.

I. Every candidate for a Medical Degree, must bring evidence that he has reached the age of twenty-one.

II. He must bring evidence of having attended for *four* years, some University, in which Medicine is regularly taught, or the Lectures delivered in the Theatre of the College of Surgeons, Dublin; or those delivered in London: one of these years at least, he must have attended the University of Glasgow.

III. He must produce Certificates of having attended the following Medical Classes, in the above-mentioned Schools—each Course being reckoned to last during *six* calendar months, viz. Anatomy during two such courses: Chemistry, two courses: Institutions of Medicine, one course: Materia Medica, one course: Midwifery one course: Surgery, one course: Botany, one course in a University Hospital, during twelve months. *N. B.* Two London courses of between three and four months each, to be reckoned equivalent to one six months' course.

IV. Each candidate for a Medical Degree, must announce his intention, and lodge the requisite Testimonials with the youngest Member of the Medical Faculty in the University, two months before the time of Graduation; that is by the 1st of March, and the 1st of June, otherwise he cannot be taken on Trial till the following year.

V. Every Candidate for a Medical Degree, shall undergo three examinations: the first, on Anatomy and Physiology; the second, on Chemistry and Pharmacy; and the third, on the Practice of Medicine. He shall likewise write a Latin Commentary on an Aphorism of Hippocrates, and a Medical Case.

VI. The Degrees shall be conferred on those Candidates who have acquitted themselves to the satisfaction of the Examinators, on the last Wednesday of April, and the first Wednesday of August, in each year, and at no other time.

Surgery.

The Curriculum of Students who mean to take Degrees in Surgery, to be three years; during which period, they must attend the following courses of *six* months each, or the equivalent London courses as specified in the case of Physicians; viz. Anatomy, two courses; Surgery, two courses; Chemistry, one course; Institutions of Medicine, one course; Practice of Medicine, one course; Midwifery, one course; Materia Medica, one course; Hospital, during twelve months. One of the years of attendance, at least, must be in the University of Glasgow: the Degrees in Surgery to be conferred, only on the last Wednesday of April.

*** The Fee to the Library, for the Degree of M. D. is £15.—Duty on the Stamp, £10. 3*s*.—that for C. M.; or Chirurgæ Magister is £10. 10*s*.

POST-MORTEM CHANGES.*

[Veterinary School of Alfort.]

As dissection rarely takes place till many hours after the death of the human subject, there must doubtless take place, in that interval, many changes, which are usually attributed to previous disease On this account it is necessary to make experiments on animals, in order to ascertain what these changes are.

Monsieur Rigot, as chief anatomist at the Veterinary School of Alfort, had the means of prosecuting this interesting investigation, in which he was assisted by Dr. Trousseau, formerly an interne of the General Hospital of Tours.

In the study of pathology, it is necessary to know what are the appearances of organs and tissues in the sound and living state, else we cannot appreciate the alterations produced by disease. The next step is to ascertain what are the immediate changes induced by the cessation of life anterior to the commencement of the putrefactive process.

In the Veterinary School of Alfort, a certain number of horses are given to the students every week for the purpose of experiments and operations. These animals are afterwards killed and dissected. In many of the examinations which our authors made, the hearts of the animals had not ceased to beat, when the dissection commenced—consequently they had the means of ascertaining the appearances of the parts examined before any *post mortem* alteration could obtain. A number of horses, to all appearance sound in health, though lame or otherwise rendered useless, were killed for the purposes in question. Examinations were made at various intervals of time from the extinction of life, and the changes carefully noted, together with all other attendant circumstances that might be likely to influence these post mortem changes. Many experiments were also made on dogs; but in these animals the appearances of parts do not accord with those in man, so well as the appearances in the horse—especially as regards the intestinal tube. The present paper is limited to the changes produced by death in sound parts. In a future memoir, our authors mean to furnish us with the changes induced in inflamed structures, by the same event.

1. *The heart and Vessels.* Twenty-eight horses were examined instantaneously after death. The lining membrane of the heart was found to be thin, white, transparent, mottled in some points. That of the arteries was of a yellowish white—and that of the veins was of a very clear white appearance. Two exceptions only occurred, where yellowish copper-coloured spots were observed on the internal surface of the aorta, and for which no satisfactory explanation could be offered, unless they were indications of incipient disease. These spots did not penetrate beneath the lining membrane of the artery, the coats being neither thickened, rugous, nor softened. Such a number of dissections, our author thinks, is quite sufficient to settle the question as to the normal condition of the internal surface of the blood-vessels, in life and health. But to clear all doubt, some *vivisections* were performed to ascertain whether any change could take place during the very act of dying, and before the parts could be exposed to view.

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* Recherches Necroscopiques sur quelques Alterations, que subissent, après la Mort, les Vaisseaux Sanguins, les Poumons, et la Membrane Muqueuse Gastro-pulmonaires à l'Etat sain. Par M. M. Rigot et Trousseau: Archives, Octobre, 1826.

We shall now take a rapid glance at some of the experiments, in order to show the successive appearances at different periods *post mortem*.

Exp. 1. A dog, two years old, was strangled, and examined *half an hour* afterwards. No water in the pericardium—internal membrane of the heart not the least tinged with blood. The same of the arteries and veins.

Exp. 2. A horse, lame, but otherwise in good health, was pithed, and opened *one hour* after death. There were six ounces of fluid in the pericardium. The lining membranes of the heart, veins, and arteries were entirely free from the least tint, although there was blood in these vessels. In some of the blood from this animal a piece of aorta was immersed. In 24 hours it was as red as scarlet, and this tinge could not be removed by repeated washings.

Exp. 3. A horse was opened *two hours and a half* after being pithed. The result was the same as in the last experiment. In the next experiment, *five hours* were suffered to elapse, and still there was nothing particular observable in the vessels or heart.

Exp. 4. In a dog, opened *ten hours* after death, the auriculo-ventricular valves were found to be of a deep red colour. The internal surface of the cavæ was also of a dark brown colour, which could not be washed off.

Exp. 5. A horse was dissected 14 *hours* after death. The whole of the aorta presented a red colour, as did the pulmonary artery. Some portions of the venæ cavæ were tinged, others not.

Exp. 6. After *sixteen hours*, a horse was carefully examined. The auriculo-ventricular valves were of a scarlet hue. The right chambers of the heart, which contained much blood, were deeply tinged—and the aorta was like scarlet.

We shall pass over the other experiments, as only multiplying the foregoing appearances. Our authors next endeavour to account for the causes which favour or retard this imbibition of the vessels. They say that, the more plastic the blood is—the less serum it contains—the less it parts with its colouring principle, so much the less it colours the tissues with which it is in contact. It sometimes happens that the chambers of the heart and also the vessels contain clots of fibrine, and at the same time some cruor: in these cases there will be corresponding patches of red, and other portions untinged. In general, the vessels containing venous blood were more tinged than those containing arterial blood. The position of the dead body has great effect in producing or preventing this tincture of the vessels. The more blood, the more the tinge of its containing tubes. If an organ, as the lungs, be in a state of congestion or inflammation before death, as soon as the vital laws have given way to the laws of decomposition, the blood begins to tinge the containing vessels. It is thus that, in cases of pulmonary inflammation, the pulmonary vessels are often found red. The nature of diseases has also an influence on this coloration of vessels. Our authors have examined several cases of what are called highly inflammatory fevers, such as are characterised by hard pulse, great heat, redness of the face, exaltation of the intellectual functions, &c. but never could discover the least trace of redness in the vessels. In fact, they consider the state of the blood, in such cases, to be unfavourable to the production of the phenomena in question. On the other hand, in those who die of erysipelas,

large and deep-seated abscesses, small-pox, scarlatina, typhus, &c. the coloration of the vessels is a common occurrence. In these, the blood is in a dissolved condition—blacker than usual—and disposed to give out its colouring matter to the containing vessels. Our authors warn the physician against applying too rigorously these experiments on animals to the pathology of man. The bodies of horses putrefy much sooner than those of the human race—and the blood of herbivorous animals is more disposed to produce this imbibition than the blood of omnivorous creatures.

Many speculations have been entertained by pathological writers on this phenomenon in the blood-vessels. Corvisart very often met with this redness of the aorta, and never could satisfactorily account for it, as it was generally unaccompanied by any thickening of the tinged tunic. Dr. Frank, of Vienna, alludes to this coloration of the arteries, but gives no details by which one can judge of the condition of the subject or attending circumstances of the case. Mr. Hodgson describes this red appearance of the arteries, but does not consider it as dependent on acute inflammation. It was not accompanied, in his observations, by thickening of the tunic, or lymphatic effusion between the coats. In fact, he is at a loss whether to attribute the phenomenon to a morbid action or to a post mortem change. M. Laennec goes farther than Mr. Hodgson; for he says:—that the redness of the lining membrane of the heart and large vessels should, in no case, and however deep the tinge, be considered *alone*, as proof of inflammation. He looks upon it as a purely cadaveric change, and more especially owing to a long struggle or agony before death. Nevertheless some able pathologists of the present day in France, range themselves on the opposite side, and bring forward facts in support of their conclusions. The principal pathologists of this class are, Messrs. Bertin, Bouillaud, and the younger Andral. In respect to some cases published by the latter, with the view of supporting his doctrine, our authors think they prove just the contrary of what they were intended to prove. Thus, a case is detailed of pulmonic inflammation, where the dissection was made *thirty-six hours* after death, and where the lining membrane of the aorta was found red. In an other case, *thirty-five hours* intervened between death and dissection, and blood was found in the cavities of the heart. Here the lining membrane of these cavities was also found red. Our authors are of opinion, after the experiments which have been detailed, that these appearances afford no certain proof of inflammation, and that they were *post mortem* changes.

Finally, our authors consider themselves entitled to conclude—1mo, That redness is no certain sign of inflammation in the lining membrane of the blood-vessels and heart. 2dly, That, hitherto we have no criterion for distinguishing inflammatory redness from *post mortem* coloration. 3tio, That the redness of the vessels is so much the more conspicuous, in proportion as the blood is more fluid and more darkly coloured—in proportion as the surrounding tissues are naturally or accidentally gorged with blood—and in proportion to the length of time that has elapsed since death. 4thly, That although these conclusions should not be very rigidly applied to the human body, yet, allowing for the obvious differences between man and animals, considerable analogy will be found to exist, and much may be learnt from these experiments on the latter class of beings.

The results of their experiments respecting the appearances of the alimentary canal, are reserved for an other paper.

POISONING BY BITTER ALMONDS.

Mr. Kennedy, of Virginia Terrace, met with a case of this kind in Sept. 1825. He was called to a man who had been observed to fall down, apparently while making water against some wood in Trinity Sreet, Borough. He was pulseless and breathless, and no blood, or very little, could be got from the jugular vein or arm. Some brandy was poured down his throat, and then a little blood flowed; but life was extinct. The mouth emitted a strong flavour of hydrocyanic acid, and a quantity of bitter almonds was found in the man's pockets.

On dissection, the vessels of the brain were found gorged with blood, as in apoplexy, but the substance of the brain healthy. The stomach was found immensely distended, and many pieces of the bitter almond among the ingesta. The contents of this organ had a strong flavour of Prussic acid. The eyes were bright and glistening, and, 24 hours after death, there was some warmth about the chest. There was no inflammation in any organ of the body.

Remarks. Some doubt may exist as to the cause of death in this case. The vessels of the brain being distended, as in apoplexy, it is possible that a sudden congestion in the vessels of that organ, occasioned or accelerated by the indigestible mass and the great distension of the stomach, might have led to the fatal event. On the other hand, the nature of the substance found in the stomach and pockets, the flavour of Prussic acid in the mouth and stomach, the glistening eye, and the long retention of heat about the chest, are strong evidences of poisoning by hydrocyanic acid.

TOBACCO IN TETANUS.*

In a former number of this Journal, we gave some account of Dr. Anderson's experience of tobacco in tetanus, as published in the first volume of the Edinburgh Medico-Chirurgical Transactions. The present contribution is a sequel to Dr. A's previous paper.

Several opportunities have been afforded our author by his professional brethren in Trinidad, of administering tobacco in idiophathic tetanus, and this medicine has proved successful in his hands. Only two cases additional are here related, the first of which terminated fatally. The second was a negro boy, 12 years of age, to whom our author was called by Dr. O'Connor. He had unequivocal opisthotonic spasms, recurring every three minutes—the convulsed and distressed countenance distinctive of tetanus—perspiration on the surface—quick pulse—furred tongue—trismus—constipated bowels—thirst, &c. The tobacco baths, strongly impregnated, were advised till nausea, and even vomiting should ensue. Purgative. The tetanus resulted from a punctured wound. Sensible effects were produced by the bath, and the spasms were controlled. Great difficulty, as usual, occurred in opening the bowels, which required calomel and gamboge. These brought away unnatural motions, and some lumbrici. After several days' perseverance in the tobacco baths, the tetanus was finally overcome, and the boy recovered. "As a general rule," says our author, "four pounds of the dried plant may be boiled for an hour in eight gallons of water, and used to impregnate the tepid water of a bath."

* Dr. Thomas Anderson. Ed. Transactions, vol. 2.

FRACTURE OF THE NECK OF THE THIGH BONE.*

Sabatier, it is well known, treated this kind of fracture by position of the limb, without any bandagings whatever: his method, subsequently modified, perhaps improved, by Mursinna, is now preferred by Dupuytren, in whose practice it is found agreeable to the patient, and less subject than others to accidents. A man who had been several years cured, by this method, of fracture of the neck of his thigh bone, walked frequently from Meudon to Paris, for the purpore of consulting Sabatier on an other disease: this man had some, but very little, lameness or deformity: he died in the Hôtel Dieu from cancer on the face. Dr. Ribes, on dissecting the fractured thigh, found the cellular texture around the joint much condensed, and the tendons of all its muscles thicker than those of the other side: the capsule was greatly thickened, and nearly cartilaginous in consistence. On the articulation being laid open by a circular incision, the neck was discovered to have been broken near the head of the bone: the portion of the neck thus separated from the head was rounded upon the fractured joint, and covered with true "diarthrodial" cartilage: and this rounded portion itself was hollowed into a deep cavity in the middle of the part corresponding to the head of the thigh bone, and covered with "accidental diarthrodial" cartilage. The head of this bone was so singularly deformed, that it presented the appearance of a skull-cap placed between the cotyloid cavity and the new head formed in the fractured neck: superiorly, a strip of periosteum enveloped the neck of the thigh-bone, and, being attached to the edges, the caplike cavity united the upper and lower parts of the bone. The "inter-articular" ligament was sound, but shorter and wider than is natural: it connected the cotyloid and cap-like cavities; and had become so very thick as to form a "double articulation accidentally developed."

FRACTURE OF THE KNEE-PAN.†

Sabatier also treated fractures of this bone by position exclusively: he placed the leg and thigh, perfectly extended, on an inclined plane, with cushions of oat-chaff, the foot being seven or eight inches higher than the groin: he subdued particular symptoms with bleeding, poultices, and fomentations. For seven days, at first, the pieces of bone remained more or less separated; but, by the end of a fortnight, the space between them visibly diminished, and was ultimately filled with a substance which daily grew firmer: in two months, a patient could walk; and soon afterwards had the use of his limb completely restored. Dr. Ribes dissected several knees in which the patella had been fractured many years before, and the cure accomplished by position entirely. In some the pieces were united by a thick, firm, ligamentary substance; in a few, this substance was six lines thick; in others, it constituted a simple layer between two of the pieces of bone: in one subject, the knee-pan was broken more than ten years before, and the bone, after the treatment by position, had become perfectly consolidated.

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* Mémoires de la Société Médicale d'Emulation de Paris, tome ix. p. 95. Paris, 1826.

† Mémoires de la Société Médicale d'Emulation de Paris, tome ix. p. 100. Paris, 1826.

RETROSPECTIVE REVIEW

OF THE

PERIODICAL PRESS

IN

GREAT BRITAIN,

SINCE ITS COMMENCEMENT IN 1730.

Forsan et hæc olim meminisse juvabit.

(No. 1.)

It is now nearly a century since the periodical press (we mean the medical) first commenced its career in these islands. In that comparatively short space of time, many a work put forth the buds of hope—flourished for a time—and then, like all earthly things, decayed and vanished from the scene! As not one in five hundred—perhaps not one in a thousand, of the profession either possesses or can have access to this voluminous series of essays and observations, it may not be unprofitable to dedicate a few pages of our Journal, occasionally, to a retrospective glance at some of those works, which, in their day, attracted the notice, and occupied the attention of those who have gone before us. Most of the resuscitated *facts* which we shall notice will be new to the generality of Readers—and some of the *reminiscences* may perchance give origin to useful reflections even among the erudite.

"Men must be taught as if ye taught them not,
"And things unknown proposed as things forgot."

It is, in truth, but a very small proportion of the "working classes," or, to use a still more significant term, the "operatives" of medical society, who have either leisure or inclination to dive into the records of past times, for the purpose of gleaning *useful* information from the vast mass of error and absurdity under which it lies buried. But we have plenty of literary miners who dig up from the bowels of antiquity, "such stuff as dreams are made on," and which produces no other earthly good than that of increasing the consumption of oil and lamp-black—employing some additional printer's devils—and augmenting the revenue by the stamp duty on advertisements. We could adduce numerous illustrations of this remark, even from the publications of 1826—illustrations which would cast in the shade the valuable specimens of medicinal lore extracted from the ancients by a Moseley, such as that—"making water through a birch broom will cure impotency"—or that "puppies, frogs, and ducks, applied to the abdomen will cure dysentery."—*Moseley on Tropical Climates, pp.* 288—315.

By these observations we do not mean to discountenance the study of the ancients—far from it—but to repress the practice of inundating modern writings with the absurdities of our forefathers—a practice which, we are convinced, is too often founded on pedantry and ostentation—exhibiting unquestionable proofs that the extent of a man's reading is often in an inverse ratio to his improvement. It will be our object, in the following

series of reminiscences, to keep *utility* constantly in view, and rather to disclose the merits, than draw forth the frailties of the dead. We have selected the present path of retrospection for various reasons; and should our labours be encouraged or approved, we mean, in an other series of reminiscences, to exhibit some of the beauties of the ancients, from the Father of Physic down to the extinction of literature in the dark ages.

It may not be uninteresting to learn what were the reasons which induced our first periodical writers in medicine, in these Isles, to commence a line of publication which has since attained such a gigantic extent of circulation and influence.

1. "THE MEDICAL ESSAYS AND OBSERVATIONS, by a Society in Edinburgh," had the honour of being the first periodical work in medicine, which Great Britain ever produced, and appears (for we have only the second edition) to have commenced about the year 1730 or 31. The reasons adduced for this undertaking, were precisely those which have been adduced within a year, for a similar work, as we shall now show.

1730. "No complaint is more general among those who apply to the study of any liberal science, than their being under a necessity of perusing such numbers of publications as are wrote on the several parts of each of them—a labour that can have no end, since one book serves only as an introduction to an other, while a few pages might contain all that is new or valuable in *most of them.*"—*Med. Essays, Preface.*

1826. "It is admitted that, of late years, the advance of medical knowledge has been unprecedented, and that publications and journals, in keeping pace with this improvement, have increased to an almost incalculable extent. The annual purchase of them has thus become a heavy tax. Nor is this the only inconvenience experienced. The practitioner, in attempting to avail himself of the various new researches which are daily published, is too frequently compelled to consume much valuable time in separating what it is important for him to know, from diffuse and often trivial detail."—*Edinb. Journal of Medical Science, No.* 1, *Jan.* 1826.

It would be difficult to find two passages more similar, or rather more identical than the above, with a century between them, in the whole range of medical literature. The elder journalist goes on deploring the multiplicity of books, and the badness of their quality—"for though the number and sizes of books are very great, as evidently appears on viewing the catalogues of the SCRIPTA MEDICA, yet how few of them are in esteem!" And he moreover broadly hints that the greater number of medical publications, in his day, were written "for any thing rather than with a view to promote the science of medicine"—so that the modern reader has the consolation of knowing that his forefathers were just as discontented as himself—and with far greater reason. For the journalist, a century ago, proposes a periodical work as a remedy for the increasing evil—and now we have no less than eight medical journals, and nearly an equal number of periodical medical transactions, within the British Isles! How would Munro *primus* (who, we suspect, was the editor of the work before us) stare, if he could burst his marble cerements, and view the numerous progeny, of all shapes and sizes, which have descended from his original stock! Some future journalist will, perchance, smile at the narrow bounds within which periodical medicine is even now confined. A time, it is possible, may come, when a medical journals will issue with each clock that strikes, from nine in the morning till ten at night.

The Edinburgh Essays lived for the space of about five years, and are contained in six octavo volumes—the principal personages who figured on the stage during that period, were Dr. Munro, Dr. Plummer, Dr. Porterfield, Dr. Martine, Dr. Paton, Mr. Douglas, Dr. Drummond, Dr. Innes, Dr. Barry, (of Cork,) Dr. John Armstrong, Dr. St. Clair, Dr. Louis Mr. Jos. Gibson, Dr. Pringle, Dr. John Fothergill, Dr. Simson, Dr. Gilchrist, Dr. Short, Dr. Crawford, Dr. Whytt, &c. &c. These were the main contributors, and many of them co-editors of the work—and yet it fell in less than half a dozen of years, and is now only to be found in collections of old books. We have taken the pains to examine these six volumes, and are sorry to observe that we are not able to enrich this article with more than one or two facts out of the collected labours of so many eminent men. One of these facts relates to a subject which has lately occupied the attention of obstetrical practitioners—namely, the complication of ascites with pregnancy, and the propriety of paracentesis under such circumstances. The case which we are about to notice appears to us to have been an hydatid in the abdomen, probably attached to the liver, which burst and produced ascites, during utero-gestation.

Case. By Mr. Laurie, of Selkirk. A woman, 36 years of age, who had borne six children, perceived in the month of November, 1739, a tumour under the false ribs, which stretched itself gradually downwards till, passing the umbilicus, it filled the upper part of the abdomen to the size of nine months' pregnancy. On the 12th of August, 1740, she thought she felt something crack within her, when the tumour suddenly became diffused through all parts of the abdomen, being previously more circumscribed about the upper parts of that region. She immediately became sick, faint, and ultimately feverish. Various medicines were used, but to no effect. Dr. Plummer being now in that part of the country, advised paracentesis, which was consented to, and on the 13th September, eight Scotch pints of water were drawn off. In a few days the belly began again to swell, and on the 22d September four Scotch pints were evacuated. On the 2d October it was necessary to operate again, and five pints were discharged. It was now discovered that the woman was about five months gone in pregnancy, and from this period every thing went on well, and she was safely delivered of a living child. She had no return of the dropsy. We have now placed on record a considerable number of cases where this embarrassing complication existed, and where the operation of paracentesis was found both safe and salutary.

We shall notice but one other fact, or rather observation, contained in these volumes. Dr. Drummond, president of the College of Physicians in Edinburgh, in a very judicious Essay "on the Improvement of Medicine," (vol. i. p. 271) clearly anticipates some modern authors who have so strongly advocated the inflammatory nature of certain dropsies, and the propriety of blood-letting in the same.

In the last volume of the Medical Essays, the editors, as has been often the case since, die in the most flourishing condition imaginable. "The demand for our collections at home, and the translations of them in different parts of Europe make us *flatter* ourselves," &c. But still they would not let *well* alone—they must do *better*. A society was formed on an extensive scale, in which all the branches of natural knowledge were to be improved, as well as all the branches of medicine. With this accession of strength they commenced a new and brilliant æra, with two secretaries of state, one of whom was no less a personage than the celebrated Plummer. But, alas! how vain are human hopes and wishes! The rebellion of 1745 broke out,

and it was nearly ten years before the new society could bring out their first volume, viz. in 1754. This series ("Essays, Physical and Literary") only reached three volumes, and in these the medical papers bear a very small proportion indeed to the others, which have little or no relation to medicine or surgery.

There is a paper in the first volume, however, which is curious, as bearing on a great physiological question agitated of late years, especially by Le Gallois and Dr. Philip. It contains a long series of experiments by the celebrated Dr Whytt, on the effects of opium on the animal system. It is well known that Le Gallois came to the conclusion that the action of the heart depended on the spinal marrow—while our countryman, Dr. Philip, maintained that it was independent both of the brain and spinal marrow. We shall give one extract from Dr. Philip's experiments, as introductory to a citation from Dr. Whytt.

"The brain of a frog and the spinal marrow as low as the dorsal vertebræ were laid bare. The thorax was then opened, and the heart found acting vigorously; and, from the transparency of its sides, the passage of the blood through it distinctly seen. The part of the spinal marrow which had been laid bare was then removed, but without at all affecting either the motion of the heart, or the passage of the blood through it. The brain was then removed with the same result.

"*Exp.* 11. The brain and spinal marrow of a frog were removed at the same time. On opening the thorax, the heart was found performing the circulation freely.

"It appears from these experiments that the action of the heart is as independent of every part of the spinal marrow as of the brain; and, consequently, that the opinion of M. Le Gallois, that it derives its power from that organ, and particularly from the cervical part of it, must be regarded as erroneous." 76.

Let us now hear what Dr. Whytt says.

"Immediately after decollating a frog, I destroyed its spinal marrow, by pushing a small probe down through its spine, which occasioned strong convulsions of all the muscles, especially those of the inferior extremities. Ten minutes after this I opened the thorax, and found the heart beating at the rate of 45 times in a minute. Sixteen minutes after decollation it moved 40 times in a minute. After half an hour it made 36, and, after 50 minutes, only 30 pulsations in the minute, which were now also become very small and feeble." "N. B. When I opened the thorax of another frog, immediately after decollation and destroying its spinal marrow, I observed its heart beating at the rate of 60 in a minute, which is only four or five less than I have generally seen the hearts of frogs make in that time, when their thorax was opened without decollation."* Several other experiments of a similar kind are detailed by Dr. Whytt, in which will be seen an equally curious anticipation and confirmation of some of Dr. Philip's doctrines.

These three volumes, as we before observed, contain a very small proportion of medical papers, and few or none of these of any interest at the present day. We may, however, just glance at one or two facts, before we dismiss the PHYSICAL and LITERARY ESSAYS.

Remedy for obstructed Menses. In the year 1755, Dr. A. Hamilton, of Edinburgh, had a conversation with his friend Dr. Hunter, in which the latter proposed compression of the external iliac arteries for the removal of

* Vol. i. p. 282-3.

obstructed menstruation. Dr. Munro was struck with the reasonableness of the proposal, and soon took an opportunity of putting it into execution.

A young girl of 19 years had been obstructed for nearly seven months, in consequence of exposure to cold while menstruating. Her complexion was rather pale and wan—appetite and digestion bad—sickness at stomach—pulse slow and languid. She had no other complaint. Warm semicupia and aloetic medicines were prescribed, and, on the succeeding evening, Dr. H. applied a compress and bandage to the crural arteries, not so tight as to cause complete strangulation of the limbs. The patient was also desired to sit over the steam of warm water. That night she menstruated freely, and continued so to do afterwards.

Considering that other means were used than the mere direction of a greater current of blood than usual to the uterine vessels, we cannot be certain how far this last measure contributed to the object attained. The circumstance, however, is rather curious.

Tetanus. Dr. Donald Munro, then physician to St. George's Hospital, communicated a paper on the use of mercury in tetanus, in which he gives the practice of a gentleman in Jamaica, who in the latter years of his life, saved twelve cases in succession, by placing his patients in a very warm room, and then rubbing in large quantities of mercurial ointment over the limbs and body till ptyalism was raised. This, with large doses of opium, was the only means he used, and by which he was so successful.

Dr. A. Monro, of Edinburgh, after reading this account, tried the same plan in a case of traumatic tetanus, and was also successful.

We must now dismiss the PHYSICAL AND LITERARY ESSAYS, which bring us down to the year 1771 or 2—there being only 8 volumes published in the space of 40 years! What a contrast with the fecundity of the medical periodical press of the present day! As we descend nearer to our own times, we shall find a gradual increase of energy and improvement apparent—but more of this in our next number.

IMPEDIMENTS OF SPEECH.

Among the numerous proposals which have been offered for the removal of Stammering, we have not heard of any so speedy and effectual as the plan pursued by Dr. Hart, of this metropolis.

The Editor of this Journal was sceptical as to the powers of art, in remedying this imperfection of speech, till one of his own sons, who had laboured under a distressing impediment of this kind for more than ten years, was speedily cured by Dr. Hart, who conducted the process in Dr. Johnson's presence. The rules to be observed are simple and few in number. They are consequently easily learnt and permanently retained in the memory, by which means, the individual is always prepared to check the stammering, when agitation of mind or other circumstance tends to throw him off his guard. Dr. Johnson's son continues free from the impediment, and he has witnessed some other cures equally complete.

1st December, 1826

X.

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review between the 15th of September, and the 15th of December, 1826.

1. The Philadelphia Journal of the Medical and Physical Sciences. No. 6, New Series, August, 1826. Philadelphia. Also, No. 7.

☞ *In Exchange.*

2. A Lecture on the Uses of Anatomy and Physiology in various branches of knowledge, delivered on Monday, the 1st of November, 1824. By JAMES MACARTNEY, M.D. F.R.S. F.L.S. M.R.I.A. Professor of Anatomy and Surgery in the University of Dublin, &c. 8vo. stitched, pp. 36. Dublin, 1826.

3. The Edinburgh Journal of Medical Science, &c. No. IV. for October, 1826.

4. On Galvanism, with Observations on its Chemical Properties and Medical Efficacy in Chronic Diseases, with Practical Illustrations; also Remarks on some Auxiliary Remedies. With Plates. By M. LA BEAUME, Medical Galvanist, &c. &c. 12mo. pp. 271. London, 1826. Price 7s.

5. Principles of Medical Science and Practice. Part II. Vol. II. Pathology. By HARDWICKE SHUTE, M.D. &c. &c. 8vo. pp. 604. London, 1826.

6. Disputatio Inauguralis de Colica-Biliosa Intertropica. Par JOANNEM EVANS, M.D. F.R.C. S.L. &c.

☞ *We shall give some account of the disease with which the crew of His Majesty's Ship Bedford was scourged, in our Periscope.*

7. Outlines of Lectures on Mental Diseases. By ALEXANDER MORISON, M.D. of the Royal College of Physicians of London and Edinburgh, &c. &c. 8vo. pp. 128, with 14 plates, containing numerous figures. London, October, 1826. *Second edition.*

☞ *These Outlines contain many important observations on mental derangement, and the plates are beyond all praise, for the excellence of their execution (by Lizars) and the fidelity of the expression which they are designed to convey. We are happy to learn that Dr. Morison has taken up his residence in London, and means to continue his Lectures on Mental Diseases. We wish him every success.*

8. Manual of Pathology, containing the Symptoms, Diagnosis, and Morbid Characters of Diseases: together with an exposition of the different Methods of Examination, applicable to Affections of the Head, Chest and Abdomen. By L. MARTINET, D.M.P. Resident Physician of the Hôtel Dieu. Translated, with Notes and Additions, by JONES QUAIN, A. B. Demonstrator of Anatomy at the Medical School, Aldersgate-street, London. 12mo. pp. 310, 1826. Price 6s.

☞ *This most excellent little work, we shall notice more at length, in an other place.*

9. System of Anatomical Plates; with descriptive Letter-Press. By John Lizars, F.R.S.E. &c. &c. &c. Part XII. Gravid Uterus, and Lymphatics. Edinburgh. Price 10s. 6d. plain, or 1*l.* 1s. coloured after Nature.

☞ *This completes the Series, and the last plates are still better than the first. The unparalleled success of this undertaking proves the merit of all parties concerned—the drawer, engraver, and author. The system of plates is now such a standard production, that it would be superfluous to say more on the occasion. Mr. Lizars has gone on through an arduous undertaking, not merely "qualis ab inceptо;" but we may safely say of the work—"viresque acquirit eundo."*

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10. New York Medical and Physical Journal, Nos. 17 and 18, for the first and second quarters of 1826.

☞ *In Exchange.*

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11. The Use of the Chlorate of Soda, and the Chlorate of Lime. By A. G. Labarraque, Pharmacien of Paris, &c. &c.- Translated by James Scott, Surgeon. London, 8vo. stitched, pp. 36, 1826. Price, 1s. 6d.

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12. An Oration delivered before the Medico-Botanical Society of London, at the commencement of their Seventh Session, Friday, 13th October, 1826. By John Frost, F.A.S. F.L.S. &c. &c &c.

☞ *The Medico-Botanical Society, Sir James M'Gregor in the Chair, passed a vote of thanks to Mr. Frost, for his Oration, and requested that it might be printed. This is saying more than any eulogy which we could pass. We are glad to find that more attention is now paid to Medical Botany than formerly; and we hope Mr. Frost will continue his zealous labours in behalf of so delightful a science.*

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13. Remarks on Phytolacea Dodecandron; or the Mustard-Tree of the Scriptures. By John Frost, F.A.S. F L.S. &c.

☞ *We understand the Bishop of London has written a letter to Mr. F. expressing his satisfaction at the elucidation thus given to a most difficult passage in Scripture.*

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14. An Essay on Morbid Sensibility of the Stomach and Bowels, &c. By James Johnson, M.D. &c. Octavo, pp. 132, price 5s. boards. Underwoods, 1827.

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15 Obstetric Plate, No. 1. This Plate represents a Fœtus in Utero, enveloped in the Membranes at the 7½ Month of Gestation, with the Placenta attached to the Body, Cervix, and Os Uteri, as taken from the subject 36 hours after death. By George Jewel, Surgeon, Lecturer on Midwifery, &c. Sold by Callow and Wilson, London.

☞ *This plate conveys an accurate idea of the partial separation of the Placenta. The unfortunate woman appears to have died of uterine hæmorrhage, no delivery having been attempted. Mr. Jewel did not see the patient while living.*

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16. A Letter from George Combe, Esq. to Francis Jeffrey. Esq. in Answer to his Criticism on Phrenology, contained in the 88th Number of the Edinburgh Review. 8vo. pp. 78. John Anderson, Ed. Longman and Co. London, Nov. 1826.

☞ *The redoubtable Jeffrey has ventured beyond his depth, and completely committed himself. It is abundantly evident that he is ignorant of phrenology, and what is more, of anatomy and physiology, on which so much of the science of phrenology rests. Mr. Combe has given the anti-phrenologist a good dressing.*

17. Materia Indica; or, some Account of those Articles which are employed by the Hindoos, and other Eastern Nations, in their Medicine, Arts, and Agriculture; comprising also Formulæ, with practical Observations, Names of Diseases in various Eastern Languages, and a copious List of Oriental Books immediately connected with general Science, &c. By WHITELAW AINSLIE, M.D. M.R.A.S. late of the Medical Staff of Southern India. Two volumes, 8vo. pp. 654 and 604. Price 40 shillings. Longman and Co. November, 1826.

☞ *Of these valuable and interesting volumes we shall give an extended analysis in our next number.*

18. The North American Medical and Surgical Journal. No. IV. October, 1826. ☞ *In Exchange.*

19. Observations upon the Autumnal Fevers of Savannah. By W. C. DANIEL, M.D. 8vo. pp. 152. Savannah, 1826.

20. An Essay on the Use of Atropa Belladonna, or Solanum Lethale, and the Solanum Hortense, with practical Observations on their Effects in the Cure of Scirrhus, Cancer, Stricture, and various other Complaints. By POWEL CHARLES BLACKETT, Member of the Royal College of Surgeons, &c. Octavo, pp. 68. Callow and Wilson, December, 1826.

21. Observations on the Utility and Administration of Purgative Medicines in several Diseases. By JAMES HAMILTON, M.D Fellow of the Royal College of Physicians of Edinburgh, &c. Eighth Edition, revised and improved by the Author, with a Chapter on Cold Bathing, considered in its Purgative Effect. Octavo, pp. 202. Edinburgh and London, 1826.

22. An Introductory Lecture on Human and Comparative Physiology, delivered at the New Medical School in Aldersgate Street. By PETER M. ROGET, M.D.F.R.S. &c. 8vo. pp. 103. Longman's, London, 1826.

23. An Elementary Description of the Anatomy and Physiology of the Brain, Viscera of the Thorax, Abdomen, &c. with corresponding Questions. Designed for the Use of Gentlemen preparing for Examination at Apothecaries' Hall, and for Junior Students. By W. SIMPSON, F.R.C.S. &c. Second Edition, 12mo. stitched, pp. 55. London, 1826. Price 2s.

24. An Introductory Lecture on Anatomy, delivered at the New Medical School, Aldersgate Street, October 2d 1826. By FREDERICK TYRRELL, Surgeon to St. Thomas's Hospital, &c. 8vo. pp. 74. Longman's, London, 1826.

25. Additamenta ad Origines Contagii. Auctore C. F. H. MARX, Dr. Prof. Med. Gottingensi. Carolirhnæ et Baduæ. Apud D. R. Marx, 1826.

This, like Dr. Marx's former work, of which we gave some account, contains a great mass of erudition and research.

26. De Euthanasia Medica Prolusio, qua ad Orationem, quam ad Auspicandum Professoris Munus extra ordinem indulgentissime sibi concessum Die XXIX. July MDCCCXXVI. Publice habebit, rite invitat C. F. H. MARX, Med. et Chir. Dr. Gottingæ, Typis Dieterichianis expressum.

☞ *We return our thanks to the learned professor for his eloquent oration on the subject of euthanasia.*

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27. Discussion Medico-legale, sur la Folie, ou Alienation Mentale, suivie de l'Examen du procès Criminel d'Henriette Cornier, et de plusieurs autres Procès dans lesquels cette Maladie a été alleguée comme moyen de Défense. Par le Docteur Georget, &c. &c. &c. Octavo, pp. 176. Paris, 1826.

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28. Traité d'Anatomie Topographique, ou Anatomie des Régions du Corps Humain, considérée spécialement dans ses Rapports avec la Chirurgie, et la Médécine Operatoire. Par Ph. Fred. Blandin, Professeur particulier d'Anatomie, &c. 1 volume in 8vo. avec Atlas de Douze Planches, Dessinées sous le yeux de l'Auteur, par N. H. Jacob, Professeur de Dessin à l'Ecole Royale Veterinaire d'Alfort. Paris, 1826.

☞ *The letter-press contains a very excellent verbal description of the parts —while the plates present decidedly the most beautiful specimens of lithography we have ever seen. This is really a very meritorious production of Professor Blandin's.*

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29. A short Inquiry into the principal Causes of the unsuccessful Termination of Extraction by the Cornea, with the View of showing the Superiority of Dr. F. Jäger's Double Knife over the Single Cataract Knives of Wenzel and Beer. By Charles Loudon, Member of the Royal College of Surgeons in London. Quarto, with an Engraving, pp. 14. London, 1826.

☞ *Of all the operations proposed or practised for the removal of Cataract, extraction appears to be generally, if not invariably, the safest and most successful. This, we believe, is the opinion of the first ophthalmic surgeons of our country and our age. To diminish the difficulties and dangers attendant on this delicate operation, a new instrument of peculiar construction has lately been invented by Dr. Frederick Jäger, of Vienna. An introduction of this instrument to the notice of British surgeons constitutes the object of Mr. Loudon's concise but luminous inquiry. This gentleman, with an ardour for professional knowledge and distinction, highly honourable to his character, has passed three years in the medical schools of France, Germany, and Italy, and paid, as this production evinces, great attention to ophthalmic surgery. It is written in a very plain, unostentatious style, and illustrated by a neat engraving of Dr. Jäger's knife.*

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30. Meteorological Register for the Years 1822-3-4 and 5, from Observations made by the Surgeons of the Army, at the Military Posts of the United States. Prepared under the Direction of Joseph Lovell. M.D. Surgeon General of the United States' Army. Quarto, stitched, pp. 63. Washington, 1826.

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31. Proceedings of the Phrenological Society of Washington, relative to two Lectures against the Science of Phrenology, delivered at the Columbian College by Dr. Thomas Sewall, Professor of Anatomy and Physiology, in May, 1826. Octavo, stitched, pp. 8.

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32. Myology, illustrated by Plates of a peculiar Construction, in Four Parts. Part the Second, containing the Muscles on the Anterior and Posterior Parts of the Arm and Hand; and Part the Third, containing the

Muscles of the Abdomen and Back. By E. W. Tuson, Lecturer on Anatomy and Physiology, Member of the Royal College of Surgeons, late House-Surgeon to the Middlesex Hospital, London. Callow and Wilson, 1826. Price, 12s. plain, 18s. coloured, each part; or the Four Parts, in boards, 2 l. 8s. plain, or 3 l. 12s. coloured.

☞ *We can safely recommend these Plates of Mr. Tuson's to the notice of the student. The different layers of muscles, their origins and insertions, are ingeniously and accurately displayed, and that in a manner which must recall to the memory of the young anatomist, more vividly than common plates can do, the myological labours in the dissecting room. They also form an excellent prelude to a dissection.*

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33. An Oration delivered on Thursday, February 9th 1826, before the Hunterian Society: with Supplementary Observations and Engravings. By Sir William Blizzard, Knt. F.R.S. &c. 4to. pp. 40, with two Plates. Underwoods, 1826.

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34. A Letter on the Medical Employment of White Mustard Seed. By a Member of the London College of Surgeons. 8vo. stitched, pp. 31. London, 1826.

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35. Dissertatio Medica Inauguralis de Pleuræ Inflammatione. Auctore, Jacobo Eaton, M.D Edinburgi, 1826.

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36. A Treatise on the Diseases of Children; with directions for the Management of Infants from the Birth. By Michael Underwood, M. D. Eighth Edition, revised, with Notes and observations, by Samuel Merriman, M.D. F.L.S. &c. 8vo. pp. 635. London, Callow and Wilson, &c. 1827

☞ *This, as might be expected from the character of the editor, is a greatly improved edition, not only on account of what is added, but of what is omitted.*

*** Note. Authors and publishers will readily appreciate the importance of having their works recorded, with full length titles, on this list, which stands as a perpetual advertisement so long as the Journal lasts, and as far as it extends. The republication of the Journal in America enhances the advantages of the Bibliographical Record, on which no work can be entered, unless transmitted, free of expense, to the Editor, under sealed cover to the publishers, or in any other way most convenient to the parties concerned.

N. B.—As the Bibliographical Record closes on the 15th of the month preceding publication, all Works received after that date necessarily stand over till next quarter.

MEDICO-CHIRURGICAL REVIEW.

(American Edition.)

All the back Numbers of this Journal, from no 1 to No. 16, inclusive, have now been imported (by permission of the Editor) by Mr. Highley, (now the Publisher of the Medico-Chirurgical Review,) who can supply gentlemen with complete sets, according to order.

☞ *The American edition is printed verbatim from the London edition, and detached numbers will correspond so as to complete imperfect sets without any deformity to the work.*

174 *Fleet-Street, December 21st*, 1826.

XI.

INTELLIGENCE, &c.

CIRCULATION AND ABSORPTION.

Dr. Barry's writings and lectures have set a number of experimenters at work, and the medical societies of the metropolis have become the theatres of the most animated and interesting discussions on the influence of atmospheric pressure in the circulation of the blood and the absorption of fluids. All the experiments hitherto made have confirmed the fact that, at each inspiration, an attempt at a vacuum is made in the chest, though the amount of that attempt—or, in other words, of atmospheric pressure brought into play, was variously estimated by different experimenters. Mr. Ellerby contended, that the influence of this agent must be exceedingly small, since it was incapable of counteracting the power of gravitation, when the animal was in the erect posture. In the horizontal posture of the animals, the fluid was sucked up rapidly through a tube inserted in the jugular vein. Dr. Barry very properly admitted, that atmospheric pressure was only one of the agents in the circulation of the blood, and that the *vis a tergo* was the primary and principal force. In the various discussions Dr. B. had a difficult task to perform, having to contend, as an individual, with scores of antagonists. It was abundantly evident, however, that Dr. B. was not merely *instar omnium*, but that he had infinitely the superiority in argument, extent of research, philosophical accuracy, knowledge of the laws of physics—and last, not least, oratorical eloquence. In this last respect particularly, Dr. B. exhibited a remarkable contrast with not a few of those who ventured to break a lance with him in the contest. In these discussions, however, the dignity of philosophy was maintained, and the very best feeling prevailed on all sides. We have no doubt that the question will be set at rest in the course of the present investigation.

We are gratified to learn, that this distinguished physician has taken up his residence in this metropolis, where he intends to give lectures on the above interesting subjects. We recommend all students to attend these lectures. They will feel the benefits of them the longest day they live.

MR. LIZARS' WORK.

Several subscribers have written to us to inquire whether Mr. Lizars means to publish any of the physiological and pathological observations promised in a note to the 10th part. Mr. L. will doubtless answer these queries in our next number.

Dr. Spurzheim is about to commence a Course of Lectures in this metropolis, after lecturing to a large class at one of our principal universities. The loud crowings and clappings of the *Little Cock of the North* have had no effect on the course of phrenology.

LITERARY NOTICES.

Ornithology.—A prospectus has been published of a highly important work on this branch of natural history, by Sir William Jardine, Bart. and P. J. Selby, Esq. the author of the splendid work on British Ornithology, who are to have the co-operation of the most distinguished naturalists in the country. Their plan is to give coloured plates of all the known or most remarkable birds, accompanied by descriptions; and those who are engaged in this undertaking, having access to all the richest, and most splendid

collections in the country, are sanguine enough to hope, that the present work will contain the most complete and accurate body of natural science that has ever been published on this subject, and that the plates, by their beauty, finish, and truth of colouring, will be found to illustrate the descriptive part of the work, and to delight the taste. as well as to inform the understanding. The drawings and engravings will be made by the authors, and the plates will be carefully coloured, and finished from living specimens, wherever they can be obtained. Particular attention will be given to the general distinctions and peculiarities of structure, and it is hoped, from the unusual opportunities of information, which the contributors to this work unquestionably possess, that it will be considered a national undertaking. The work will be published in quarterly parts, and the first part will appear early in January, 1827.

To be published on the 1st of February, with numerous engravings on wood, Dr. Arnott's work on General and Medical Physics.

It is a system of Natural and Experimental Philosophy, with strictly scientific arrangement, but made easily intelligible to those who have never learned, or who have forgotten the mathematics. In addition to a great mass of illustrations from general nature and the arts, adapted to the present more comprehensive scale of a liberal education, it comprises many very interesting particulars furnished by examination of the animal body under health, disease, and medical treatment; and among these there are new disquisitions and suggestions.

In the press, a new edition of the Meteorological Essays, by James Frederick Daniell, Esq. F.R.S.

This edition, besides the former Essays, upon, I. The Constitution of the Atmosphere; II. The Construction and Uses of a new Hygrometer;—III. The Radiation of Heat in the Atmosphere;—IV. The Horary Oscillation of the Barometer;—V. The Climate of London, with corrections and additions, will comprise Essays on the following subjects:—VI. Evaporation as connected with Atmospheric Phenomena;—VII. Artificial climate considered with regard to Horticulture;—VIII. The Connexion between the Oscillations of the Barometer at distant places;—IX. The Insinuation of Air into the Torricellian Vacuum, and the Means of preventing the gradual Deterioration of Barometers; it will also contain various Meteorological Observations and Remarks, and numerous Tables, Plates, and Diagrams.

TROPICAL CLIMATES.

The influence of Tropical Climates on European Constitutions; to which is now added, an Essay on Morbid Sensibility of the Stomach and Bowels, as the proximate Cause or characteristic Condition of Indigestion, Nervous Irritability, Mental Despondency, Hypochondriasis, &c. &c.—preceded by Observations on the Diseases and Regimen of Invalids on their return from Hot and Unhealthy Climates. By JAMES JOHNSON, M. D. of the Royal College of Physicians, and Physician to His Royal Highness the Duke of Clarence. Fourth Ed. greatly enlarged and improved, 8vo. pp. 680, 1827.

N. B. The Essay on MORBID SENSIBILITY OF THE STOMACH AND BOWELS, &c. is published separately, price 5s. for the benefit of those who may be in possession of the former Editions, or who may not desire to possess the work on Tropical Climates.

Additional Subscribers since last Quarter.

Barry, Dr. David, Member of the Royal College of Physicians of London, &c. 7, Great Mary-la-bonne Street, Cavendish Sq.
Buchanan, Dr. William, Assistant Surgeon, Bengal Establishment.
Churchill, Mr. Surg. Park Street, Grosvesnor Square
Dalton, Mr. Surgeon, &c. High Street, Cheltenham
Embleton, Mr. Surg. Banborough
Ernests, Dr. Sheffield, Yorkshire
Fergusson, Dr. Windsor
Geirrard, Dr. Feversham
Heygate, Mr. James, Surgeon, Hamstope (we believe)
Huie, Richard, M. D. F. R. S. A. &c. George Square, Edinburgh
Lamont, Dr. J. B. Jamaica
Lewis, Mr. Surgeon, Member of the Royal College of Surgeons of London, Tenby, South Wales
Luscombe, Mr. Yealinton
M'Andrew, Dr. Assistant Surgeon of the 1st Foot—to Madras
M'Manus, Dr. Piazza St. Trineta, Florence
M'Manus, Mr. Edinburgh Medical Society, Borough
Miller, Dr. 9, New Broad St. City
Owen, Mr. William, Member of the Royal College of Surgeons, and Licentiate of the Worshipful Society of Apothecaries, London, Manchester
Pretty, Mr. Surgeon, Mabledon Place, Russel Square.
Ralph, Mr. Surgeon, Leicester Square
Simpson, Mr. W. Member of the Royal College of Surgeons of London, &c. Hammersmith
Spelling, Mr. Surgeon, Ecclesfield
Strachan, Dr. Calcutta
Watt, William C. Surgeon, R. N.
Wheeler, Mr. Surgeon, Bayswater
William, Mr. O. G. Surg. Swansea

HOSPITAL REPORTS.

Our readers are aware that, in almost all the public hospitals of Paris, some distinguished ELEVE INTERNE is deputed by each physician or surgeon, to draw up a quarterly report of the diseases, to be published in some of the various medical journals of the French metropolis. This procedure is productive of many advantages. In the first place, the public at large are incalculably benefited—in the second place, the medical officers of the hospitals are fairly represented, and their practice made widely known—in the third place, the pupil, who thus reports, is stimulated to acute and careful observation of the phenomena of disease, his mind is strengthened by exercise, his accuracy is guarrantied by the responsibility attached to the undertaking, and he is thus early introduced to public notice, and favourably so, if his reports are ably drawn up. We have, on many occasions, held up this example to the medical iustitutions of this country, metropolitan and provincial; but it has not yet been acted on, in the manner we have described. Wishing to encourage such an undertaking, by giving it a commencement, we hereby offer to devote about a sheet (16 to 24 pages) of closely printed letter-press, in the EXTRA-LIMITES of each number, to the BEST quarterly report which may be transmitted to us, from a metropolitan or large provincial hospital, adjudging to the reporter a complete set of this Journal, and a continuation of the Journal, free of expense, for two years, with a perpetual registry of his name in a permanent list set apart for that purpose, and kept standing in a conspicuous part of the Journal. The prize is small, in pecuniary value; but the testimony of merit will be thus placed in a more conspicuous point of view than has ever yet been done.

THE

MEDICO-CHIRURGICAL REVIEW.

VOL. X.] Analytical Series. [No. 22.

"Nec tibi quid liceat sed quid fecisse decebit
"Occurrat, mentemque domet respectus honesti."

VOL. VI.] APRIL 1, 1827. [No. 12.

[NEW SERIES.]

I.

PROPOSITIONS, OR PRINCIPLES OF MEDICINE.

By F. J. V. Broussais, M. D. &c.

We have often contended that Professor Broussais carried his theory rather too far, in placing the *original* seat of fever exclusively in the mucous membrane of the stomach and bowels; though we believe that both the symptoms and dissections would show the said structures more frequently implicated in fever, than any other part of the body. This was the conclusion to which the late Dr. Beddoes came, after examining the records of medicine in all countries respecting the *post mortem* appearances in fever. But be that as it may, we consider the PROPOSITIONS, or PRINCIPLES of MEDICINE which M. Broussais has prefixed to his examination of "medical doctrines, and symptoms of nosology," as by far the best code of aphorisms or PRINCIPIA MEDICINÆ, which have ever been offered to the public in so concentrated a form. They are more in accordance with the advances which have been made in pathology and therapeutics, than any which have preceded them—and, in fine, we think them extremely well worthy of record in this Journal, and highly deserving the serious attention of the physiologist, pathologist, and practitioner. They are not indeed free from error, as we shall endeavour to show, in occasional comments; but they contain a vast store of val-

uable principles adapted to practice, and serving as a safe guide between the extremes of dogmatism and empiricism.

We now enter on our task without farther preface, only premising that we shall occasionally somewhat condense the language without altering the sense of the propositions of Broussais. This article may be considered, therefore, as a correct translation of the new physiological doctrine.

SECT. I.—PHYSIOLOGY.

1. Animal life can only be supported by stimulation from without;—and every thing which *augments* the vital phenomena is a stimulant.

2. Caloric is the primary and most important of all stimulants; and when it ceases to excite the animal economy, the others soon lose their action on the system.

3, 4, 5. (Relate to caloric.)

6. The composition of the solids and fluids is an ANIMAL CHEMISTRY; and the power which sets this chemisty in action, confers on the organs the faculties of feeling, and motion, by contraction. Sensibility and contractility, then, are the signs or proofs of life.

7. Certain substances in nature, besides caloric, augment the sensibility and contractility of those parts of the living body, with which they come in contact. This is stimulation or irritation, and the agents are stimulants.

8. Sensibility and contractility being augmented in one point, are soon augmented in several other points—this is sympathy.

9. Sympathy takes place through the medium of the nervous system.

10. All the phenomena of *association* take place through the medium of the nervous system, which transmits the stimulation from one part to several others—these also are sympathies.

11. The object and end of primary and sympathetic stimulation, are always NUTRITION, THE REMOVAL OF NOXIOUS CAUSES, AND REPRODUCTION. The movements by which these processes are accomplished are called FUNCTIONS:—but for the exercise of these functions the fluids must concur with the solids—in all stimulation there is an afflux or attraction of fluids to the part stimulated.

12. Sensibility and contractility are distributed in different degrees in the various tissues of the living body. Those which

possess it in the highest degree, receive direct impressions from stimulants, and transmit the resulting action to the other parts: they are therefore the primary and natural movers of sympathies.

13. These tissues are particularly those on which the nervous matter is spread in the form of a pulp intermingled with the capillary vessels, sanguiferous and seriferous:—as the skin, the organs of sense, and the mucous membranes, which are the internal organs of sense.*

14. All the organs of sense, above-mentioned, are subjected naturally to the action of agents, both from without and from within;—and the stimulation or impressions which they receive are transmitted to the brain, their common centre, as well as to various other tissues and parts, by which the functions are sustained.

15. All stimulation capable of exciting a perception in the brain, traverses first the nervous system of relation; it is then repeated in the mucous membranes, whence it is again transmitted to the brain, which judges according to the counsel of the viscus to which the mucous membrane belongs, and acts according to the pleasure or pain experienced. This action has always for object the duration or repetition of the impression, or the removal of its cause.

16. The action determined by the cerebral centre of relation is executed through the medium of the loco-motive muscles—the same nerves which transmitted the impression to the brain, serving for the conveyance of the will to the muscles.†

17. While an impression, or rather the stimulation which results from an impression, traverses the nervous system of the viscera, it determines certain movements in the fibrous structure, making part of the viscera; modifies the circulation of all the fluids passing through them; and produces also involuntary contractions of the loco-motive muscles (if any) belonging to the viscus.

18. Whilst the stimulant influence of the brain is exercised, voluntarily or involuntarily, on the loco-motive muscles of the body, the stimulation is also communicated (but involuntarily) to the fibrous and vascular tissues of the viscera—because the

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* Broussais is hardly justifiable in placing the highest degree of *contractility* as well as sensibility in the above tissues. Sensibility they undoubtedly possess—but the highest degree of contractility resides in the muscular system, and which may be called into action sympathetically by the impressions on the said tissues.—*Rev.*

† Or rather a portion of the same nerve, as it is now pretty well ascertained, that each nerve is composed of two distinct parts, one for motion, and the other for sensation.—*Rev.*

nerves of relation are common to the loco-motive muscles and to the viscera.

19. The voluntary movements having placed the edible materials in contact with the organs of assimilation, these last operate upon them, each in its own way.

20. Assimilation is a phenomenon of the first order, and which cannot be explained by the action of sensibility and contractility:—It is evidenly owing to the creative power (puissance creative) and is one of the acts of the "living chemistry."

21. Absorption depends, in the first place, on the affinities of this "living chemistry;"—in the second place, on the exercise of the sensibility and contractility.

22, 23, 24, 25, relate to the circulation, nutrition, excretion, and reproduction, which we may pass over.

26. States the existence of the ganglionic nerves, having the ganglia of the abdomen for their centre or sensorium.

27. The ganglionic nerves penetrate into the viscera and muscles, along with their vessels and their nerves of relation—many penetrate into the viscera and into the muscles of the trunk—few into the muscles of the extremities.

28. Injury of the ganglionic nerves does not cause, primarily, either pain or convulsions—*they do not transmit sensations to the brain, nor orders from the brain to the viscera.*

29. The ganglionic nerves, then, preside only over the interior movements or functions of the viscera, which are independent of the brain—they are grand agents, therefore, in the "living chemistry."

30. The ganglionic nerves receive and collect the stimulant influence of the cerebral nerves, over which supply the individual has no voluntary control, either of acceleration or retardation.

31. The ganglionic nerves, then, avail themselves of the vital force of the animal, for the purpose of this living chemistry, independently of any voluntary influence or power. When the sum of this vital force is not sufficient for the two great orders of functions, (animal and vital,) the former is deprived of a portion, in order that it might be concentrated on the vital viscera. The ganglionic nerves appear to effect this diversion by cumulating the vital force, and with it the fluids, in the vessels of the viscera, and especially in the vessels of the brain—which is the cause of sleep.*

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* We see this exemplified every day. Thus, if weakly people take a full meal, the vital force is not sufficient to supply the voluntary muscles, the intellectual operations, and the process of digestion. The two former func-

32. When irritation predominates in the viscera, the ganglionic nerves cause a reflux of it into the apparatus of relation, through the medium of the cerebral nerves, with which they are in intimate communication in the viscera; nor is it in the power of the will to prevent this reflux of irritation into the system of relation, no more than to prevent its ingress into the viscera from the aforesaid system at other times.*

33. The centre of relation, (the sensorium,) solicited by the influence of the viscera, excites, with or without the concurrence of the will—with or without the consciousness of the individual, certain movements in the loco-motive apparatus, which are in direct ratio to the visceral irritations, and which cease only with the cessation of these irritations, or the engorgement and destruction of the brain itself.

34. Every time that there is excited in the animal economy a stimulation capable of giving a shock to the cerebral nerves of relation, this stimulation is transmitted to the sensorium, which may execute movements with or without the consciousness—with or without the will of the individual. The phenomena, therefore, of *consciousness* are not always present when perception and re-action of the sensorium are going forward.

35. The perceptions of the sensorium, accompanied by *consciousness*, bear the name of *sensibility*, and the movements which the sensorium directs with consciousness are called *voluntary* movements; but the perceptions of the sensorium, *unaccompanied* by consciousness, and the movements directed by the sensorium without the participation of the mind, cannot be attributed either to sensibility or voluntarity. They are a peculiar species of *organic* or automatic phenomena. The cerebral nervous system, therefore, exhibits two *modes* in its functions.†

36. Every time the mind has a perception, it feels, at the same time, in the brain, and in some other part external to the brain. (Prop. 12.) But the extra-cerebral points of sensation are not confined solely to the external and internal organs of

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tions, therefore, are more scantily supplied, and the vital force is directed to the digestive apparatus. Hence the powers of the mind are enfeebled—the muscles are unequal to exertion—and the individual has an inclination to lie down and sleep.

* This, too, we often see exemplified. Thus, when indigestible substances irritate the mucous membranes, or, in other words, the ganglionic system, there is a reflux of the irritation upon the muscles, and even upon the intellectual organs—hence the restlessness, fidgets, and cramps, which people experience at night, together with want of sleep, after too heavy dinners or suppers.

† Thus, worms in the intestines will cause irritation there, without the individual being aware of it, which irritation will be communicated to the

sense; (described in prop. 12.) They are extended also to accidental foci of inflammation; for inflammation places the nerves of most tissues in a condition nearly analogous to that of the nerves of naturally sensitive surfaces. These foci of inflammation, therefore, become, as it were, accidental and temporary organs of sense.

37. The mind is capable of refusing to execute certain actions, in obedience to sensations excited by the natural and accidental organs of sense. (36.) But there are other actions, which it can only prevent for a longer or shorter period.

38. The mind has the power of retarding or preventing the execution of acts demanded by the sensations, *only* when the encephalic apparatus is in an advanced state of developement—when it is in a waking state—and in health. This power or faculty is null in infancy—increases with the exercise of the intellect—and presents, in insanity and other morbid conditions, numerous modifications.

39. Those acts which the mind can only retard for a time, are such as are solicited by the sensations that proceed from the viscera essential to life, and which are connected with the urgent execution of their functions.

40. Among the acts which the individual can refuse to execute, there are *some* which are solicited by the wants of the vital viscera, but which may not be very urgent; (the taking of food, for example;)—if they become urgent, the will must obey the demand, or alienation of mind, or death of the body, must ensue. The *other* acts which the mind can refuse to execute relate to functions which are not essential to the conservation of life; but the refusal, even of these, may produce insanity.

41. When the animal suffers and dies, from refusal to satisfy the demands of the viscera, it is the triumph of intellect over instinct. But when mental alienation is the consequence of this struggle, (from irritation of the brain,) it is the triumph of instinct over intellect.*

42. Instinct consists in sensations determined by the viscera,

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sensorium, through the medium of the cerebral or spinal nerves distributed to the viscera, and there produce a sensation or impression, without our consciousness of such sensation—and the effect or consequence of this irritation will often be convulsions or irregular movements of the muscular system, quite independent of the will. This example explains one of the modes of function in the cerebral nervous system—a function which plays a most important part in numerous diseases, and which has tended, more than any other law of the animal economy, to puzzle the practitioner, and lead into error.—*Rev.*

and which solicit the cerebral centre to execute acts necessary for the exercise of their functions.

43. The acts solicited by instinct are often executed without the participation of the will, and even without consciousness. Examples are found in the fœtus, and during sleep.

44. The acts solicited by the instinct predominate in the infant, and diminish in proportion as the intellect becomes perfected.

45. The intellect manifests its influence on the organism by the modifications which it impresses on the sensations determined by the instinct, and on the acts solicited by the latter.

46. The passions are sensations at first excited by the instinct; but afterwards fomented and increased by the attention bestowed on them by the intellect, so as to become predominant, and leading to acts more or less remarkable, but always directed to the gratification of the instinctive wants, which were their origin.

47. The passions are, like insanity, the triumph of the viscera, and consequently of instinct, over intelligence. In this way they often lead to mental derangement.

48. There is always a mixture of instinct and intellect in the passions.

49. Instinct may be exercised with or without the intellectual faculties.

50. The intellectual faculties have always some portion of instinct mixed up with them.

51. The intellectual faculties may be exercised without passion; but never without a mixture of pleasure or pain.

52. The pleasure and pain which accompany the exercise of the intellectual faculties have the same seat as the pleasure and pain of the passions—for the sensorium cannot feel in the brain without feeling also in the viscera—and it is in these last that it feels most.

53. When the intellect is occupied with ideas relative to the wants of a viscus, or the functions of an organ of sense, the nerves of this viscus or this organ of sense are always in action, and transmitting sensations to the sensorium; hence it results that the destruction of a nerve of sense causes, by degrees, an abolition of the ideas that used to be produced through this medium.

54. An acephalous fœtus may live till its separation from the mother, when it dies, because the respiration depends on the brain.

55. Organs whose communication with the brain is completely cut off, soon lose their vitality. But this is rare; for

in paralysis, the consequence of affection of the brain, there is still some communication left, and the members live, though in an imperfect condition.

56. It is not from the defect of a peculiar principle derived from the brain that paralysed parts waste, but from want of excitation and exercise.

57-58 relate to paralysis.

59. A free and constant communication of excitement between the brain and all parts of the body is indispensable for the maintenance of an equilibrium in the functions of the body.

60. In hot climates and in hot seasons, excitation is more produced from the exterior than from the interior surfaces of animals, and *vice versa* in cold climates and cold seasons. In these latter circumstances, the gastric surface becomes the principal medium of excitation, and nutrition is then more active.

61. Excitation is never uniform in the animal economy:—it is always *plus* in some parts, and *minus* in one or several other parts—thus predominating successively in various regions of the body. This inequality often goes so far as to produce derangement in the equilibrium of the functions.

62. Health is never impaired spontaneously; but always because the external stimuli, destined to sustain the functions, have accumulated excitement in some part—or because they have been insufficient for the animal economy—or because the animal economy has been stimulated in a manner which is repugnant to the laws of vitality.

63. There are certain external agents or modifiers (modificateurs) which diminish the phenomena of life in those organs to which they are directed; but the pain developed in the enfeebled part performs the office of an excitant, and recalls the vital phenomena, sometimes in a salutary manner, sometimes in a manner unfavourable to the conservation of life.

64. Sanguification in excess augments the sum total of vitality; but this process has a boundary, beyond which, the excitation accumulates in some organ, and disease is the consequence.

65. Excitement may accumulate, or superabound in some organs or parts, although the sum total of excitement in the system may be below par! and this inequilibrium may go on to marasmus or even death.

66. The animal economy can never long sustain super-irritation, or immoderate stimulation with impunity. Those who appear to be completely habituated to inordinate excitants, sooner or later experience the consequences, in the shape of local disease or super-irritation.

Here terminate the propositions of physiology; and we are inclined to think that they well merit the attention of the medical practitioner. They contain many profound views of the animal economy in health—views which naturally lead to others still more profound and important in disease. We shall therefore, proceed at once to the second division of the subject.

SECT. II.—PATHOLOGY.

67. Health consists in regularity of the various functions—disease, in their irregularity—death, in their cessation.

68. The functions are irregular when one or more are exercised with too much or too little energy.

69. The energy of a function is in excess, when it precipitates, suspends, or deranges other functions with which it is associated, so as to menace the organs on which these functions depend.

70. The energy of a function languishes, when the organ or organs by which it is performed do not enjoy a sufficient degree of vital power.

71. The vitality of an organ may have been too much exalted before it became diminished, and *vice versa.*

72. There is no such thing as a *general and uniform* diminution or exaltation of the vitality of all organs.

73. Exaltation of the vital force always commences in one organic system, and is thence propagated to one or more other systems.

74. The nature of the exaltation thus communicated from one organ to an other, is the same as the original exaltation—namely, an augmentation of the vital phenomena.

75. The exaltation of one or more organic systems invariably occasions languor or depression in some other system or apparatus.

76. The diminution of vitality in one or more organs *often* occasions exaltation of one or more other organs or parts—but *sometimes* a diminution in these last.

77. The exaltation of vitality in an organ or apparatus—presupposes a degree of excitement produced there by stimulants, which is incompatible with the maintenance of health—that is to say, a super-excitation produced by super-stimulation.

78. A local or partial super-excitement always supposes a too great afflux of fluids to the parts, viz.—a *congestion* prejudicial to the exercise of the functions of the part.

79. The union of super-excitation and partial morbid con-

gestion always induces an unnatural or irregular nutrition of the part—thus constituting a state of *active congestion*, necessarily tending to disorganization.

80. Super-excitation and active *local* congestion are compatible with a *general* diminution of the sum total of vital force in the individual.

81. Local diminution of vital force is always followed by local diminution of nutrition, though *passive* congestion may sometimes co-exist in the part.

82. Passive congestion may cause disorganization, but this not nearly so often as active congestion.

83. Active morbid congestion being always the companion of super-excitation or *super-irritation*, this last word will be used, for brevity's sake, as comprehending the said condition of *active morbid congestion;* and this is to be particularly borne in mind.

84. Irritation may exist in a system or apparatus, without any other system or apparatus being involved; but then the irritation is very inconsiderable. As soon as the irritation rises to a certain point, it is propagated to other systems or parts, more or less remote, and that without any change in its nature.

85. The nerves are the sole agents in the transmission of irritation—thus constituting the MORBID SYMPATHIES, which are effected in the same way as healthy sympathies, except that, in the *former* case, the nerves transmit irritation or super-excitation instead of the healthy quantity of excitation.

86. MORBID SYMPATHIES are of two kinds—organic sympathies, and sympathies of relation. The *former* are manifested by organic phenomena, as increased action, congestions, derangements in the secretions, exhalations, &c. changes in the temperature of the body, and vices of nutrition:—these are ORGANIC sympathies. The sympathies of RELATION are manifested by pains, convulsions of the voluntary muscles, and mental aberrations.

87. The organic sympathies may exist without the sympathies of relation; but these last induce sooner or later the former. In general, the two kinds of morbid sympathies co-exist.

88. The greater the sensibility of the organ that is irritated, and of the individual generally, the more the morbid sympathies are multiplied, and *vice versa*.

89. The more numerous and active the morbid sympathies, the more grave the malady.

90. Sympathies of relation (86) when in excess, may occasion death, which seems to depend on some serious derangement

of the sensorium, in such cases. Excess in the organic sympathies may also cause death, by congestion and disorganization of one or more of the viscera.

91. The organ which is primarily irritated is sometimes the only one to suffer congestion or disorganization—the sympathising organs not being sufficiently irritated to partake in the congestion or disorganization.

92. The organs sympathetically irritated may contract a higher degree of irritation than that of the organ originally affected. In such cases the disease changes its place and name. This is metastasis.*

93. The organ which has become the seat of a metastasis, excites, in its turn, other sympathies proper to the organ—and these again may become predominant:—such are the ERRATIC INFLAMMATIONS, &c.

94. If the sympathetic irritations which the principal viscera determine in the organs of secretion, exhalation, and in the surface of the body, become more powerful than those in the viscera themselves, these viscera are relieved and the disease speedily terminates in a favourable manner. These are the CRISES. In such cases, the irritation proceeds from the interior to the exterior.

95. Critical congestions always terminate by some evacuation from the system, whether secretory, purulent, or hæmorrhagic. Without one of these, the crisis is not complete.

96. If irritation proceeds from the exterior to the interior—or from one viscus to an other of more importance, the disease is aggravated. These are the false crises of authors.

97. Irritations have no fixed duration or march; both one and other are determined by the idiosyncrasy of the individual, or by the influence of various external or internal agencies.

98. Irritation has a tendency to propagate itself by similarity of tissue and organic system—this is what constitutes diathesis. Nevertheless, it sometimes passes into tissues of a very different kind from those in which it originated—and this more frequently in acute than in chronic diseases.

99. When irritation accumulates the blood in a tissue, so as to present swelling, redness, and heat, capable of *disorganizing*† the part irritated, we give it the name of inflammation.

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* This, we think, is the most simple, natural, and just explanation that has ever been given of metastasis, about which so many absurd controversies have taken place.

† By this is evidently meant a change from the natural or healthy structure, and not such a degree of change as is incompatible with return to healthy structure. This last acceptation is that in which we generally receive the word *disorganisation* in this country.

100. Inflammation, even of the most intense kind, is not necessarily accompanied by local pain.

101. The local pain of inflammation offers a very great variety, dependent on the nature and degree of the sensibility of the part, and of the individual generally.

102. Inflammation often excites more pain in the parts which are sympathetically affected, than in those where the original focus of inflammation is seated. Inflammation of the mucous membrane of the stomach and bowels, &c. offers daily examples.*

103. When inflammation excites no pain, it only awakens the *organic* sympathies. (86.)

104. Inflammation always effects a change in the fluids of the part inflamed. 105. It may exist without suppuration.

106. Inflammation often leaves, as a sequela, a kind of irritation, which does not go by its own name, and produces a kind of *cacochymia*, which has been falsely considered as idiopathic.

107. Inflammation often excites sympathies of relation (86) which have occupied the attention of writers and practitioners, as idiopathic diseases, and are called *nervous*,—the neuroses.†

108. Inflammation does not change its nature in consequence of the debility which it induces.

109. The irritations of all organs are transmitted to the brain, where they acquire a certain degree of intensity, especially if they be inflammatory irritations. There is then induced an alteration of the intellectual and affective faculties, and a state of malaise or even pain, which is referred to various parts rather than to its primary seat. An excess in this morbid sympathy ends occasionally in encephalitis.

110. Intense irritations of all organs are constantly transmitted to the stomach, from the very beginning—hence result inappetence, alteration of colour in the tongue and its secretions, &c. If this irritation, when propagated to the stomach,

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* The same may be said of *irritation*. This, though seated in the stomach, or small intestines, will often show itself any where and every where, rather than in the spot where it has its head quarters.

† Here the ingenious author begins to tread on tender ground, though not entirely untrodden before. Dr. Parry resolutely maintained that the *neuroses* were occasioned by *determination of blood*, which is nearly the same thing as what Broussais is contending for in this place. If, for the terms used by both authors, they had substituted *irritation*, we should have been ready to agree with them. As it is, the doctrine of Broussais is one of great interest, as will be seen in our progress. It will tend greatly to remove some of the obscurity which involves the class neuroses, and prove that many of them which are considered idiopathic, are only *sympathetic* irritations of disordered viscera or deranged secretions.

rises to the point of inflammation, we have then the symptoms of gastritis, in consequence of which, the brain is more irritated than before, and, in a very high degree of this sympathetic cerebral irritation, inflammation of the brain itself may take place.

111. Intense irritations of all organs are transmitted to the heart; and then the circulation is accelerated, the heat augmented, and most unpleasant sensations excited on the surface. This is fever, taken in a general or abstracted point of view.

112. Fever is always the consequence of irritation of the heart, primitive or sympathetic.

113. Every irritation sufficiently intense to produce fever is a shade of inflammation.

114. Every inflammation sufficiently intense to produce fever, when propagated to the heart, is, at the same time, sufficiently so to be propagated to the brain and stomach—and as the nature of inflammation is not changed by its sympathetic propagation from one organ to an other, the affection of heart, brain, and stomach, in these cases, is a grade or shade of inflammation.

115. Irritations transmitted to the brain and stomach from an inflamed organ, sometimes diminish, while the original inflammation persists; and these two organs (brain and stomach) regain their functions, whilst the heart continues to be greatly irritated, and to keep up the fever.

116. Although the brain and stomach continue their functions during the inflammation of other organs; yet they are nevertheless irritated *organically*. (86.) This irritation borders on inflammation, and not seldom changes into this state, if the original focus of inflammation continues till death.

117. If the irritation excited by sympathy in the stomach and brain, instead of diminishing, becomes more intense than that in the original focus—the case is metastasis of inflammation to these organs.

118. Inflammation of the encephalon *always* draws after it inflammation of the alimentary passages, and *sometimes* of the organs annexed to these passages:—this is an organic sympathy.*

119. Inflammation of the encephalon is more frequently the *sympathetic effect* of inflammation of the stomach, than the *cause*.

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* We can not agree with M. Broussais on this point, unless he modifies the term inflammation into *irritation*. With this modification it would be difficult for any close observer of nature to deny the truth of the proposition.

120. The sanguineous congestion of the stomach in ebriety, typhus, and other fevers *mali moris*, is propagated to the brain and also to its coverings.

121. Encephalic inflammation excites *nervous phenomena*, which are often considered erroneously as idiopathic affections.

122. All irritations of the encephalon, which are prolonged till death takes place, end in inflammation or hæmorrhage—such is the case in fatal epilepsy, catalepsy, and mental perturbation in excess.

123. Mania always supposes an irritation of the brain:—which irritation may be long kept up there by inflammation in a distant part, and subside when that inflammation subsides; but, if continued for a certain period, it generally ends in veritable encephalitis, parenchymatous or membranous.

124. No extra-cerebral inflammation can produce mania, until the stomach and small intestines become affected. In such cases the liver is affected secondarily.

125. Arachnitis is more frequently consecutive of gastro-enteritis than primary:—but delirium, insomnium, and convulsions, may be kept up by this gastro-enteritis—disappear as it disappears—or leave, after death, but very faint traces of its previous existence.

126. All severe suffering, whether from inflammation of an organ, stimulation of a branch of a nerve, or mental perturbation, tends to produce fulness of blood in the brain, (engorge le cerveau,) and develope inflammation there or in its coverings. But the sufferings of the stomach are the most cruel of all—and each and every of the above causes produce this gastric derangement. Gastro-enteritis never obtains without exciting more or less of cerebral irritation.*

127. Tubercles, cancers, and other organic diseases of the brain, are the products of chronic inflammation of that organ.

128. All irritations of the encephalon may border upon, if not end in, apoplexy.

129. The term APOPLEXY means the cessation of the phenomena of relation, (abolition of sense and motion.) We may distinguish two principal *degrees* of this disease by the absence or presence of paralysis; but no division can be properly founded on the pathological characters of the brain, as ascertained by dissection.

130. Inflammation of the internal or mucous membrane of

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* There is great truth in this proposition—especially if we substitute irritation for inflammation. The quantum of mental misery produced by irritation in the stomach and bowels can only be estimated by the dyspeptic invalid!

the stomach, termed gastritis, can never be verified by dissection, but in connexion with inflammation of the internal membrane of the small intestines. It would be more proper, therefore, to give it the name of *gastro-enteritis.*

131. Inflammation of the internal membrane of the small intestines is sometimes seen in the dead body, without any corresponding state of the stomach; but this isolated enteritis can never be positively recognized in the living body—hence an additional reason for using the term *gastro-enteritis.*

132. Gastro-enteritis presents itself in two forms, marked by the predominance of the gastric or intestinal phlegmasia. The pain of stomach, the nausea, vomiting, and inability to bear nourishment, characterise the gastritis—the power of satisfying the thirst, the rapid absorption of fluids swallowed, are signs of the predominance of enteritis. The other symptoms are common to both affections, with very few exceptions.

133. Acute inflammation of the mucous membrane of the small intestines, without affection of the peritoneum, is not attended with colicky pain in the majority of cases—but, often with only a sense of heat or malaise, and constipation of the bowels. Invaginations of this part of the intestines seldom cause ileus, or even pain, except of a slight colicky nature.

134. Colick, diarrhœa, and tenesmus, are the proper signs of inflammation of the mucous membrane of the COLON. 135. *Colitis* is the proper term for this phlegmasia, which, however, often succeeds or accompanies *gastro-enteritis,* as above defined.

136. Gastro-enteritis is unaccompanied by any fixed pain, where the inflammation is not severe, and extending to the stomach or duodenum:—and even pressure on the abdomen does not call forth pain.

137. *Gastro-enteritis* is distinguished by the sympathies which it excites:—1mo, by organic sympathies, viz. redness and heat at the open extremities of the mucous membranes, (in the mouth for instance)—the same in the skin—derangement of the biliary, urinary, and mucous secretions. 2ndo, by sympathies of relation, viz. pains in the head and limbs—confusion of the feeling and judging faculties, (l'aberration de la faculté de sentir et de juger.) The influence exercised on the heart by this phlegmasia, is common to many other inflammations.

138. Acute gastro-enteritis, if exasperated, gives rise to stupor, fuligo, livor, fetor, prostration of strength, and, in short, to those phenomena described in putrid, adynamic, and typhoid fevers. If the sympathetic *irritation* of the brain

passes into *inflammation*, we have delirium, convulsions, &c. exhibiting the characters of malignant, nervous, or ataxic fevers.

139. All the idiopathic (essential) fevers of authors, are referable to simple or complicated cases of *gastro-enteritis*. This phlegmasia has been overlooked when unaccompanied by local pain; or the local pain, when manifested, has been considered as accidental.

140. Authors, indeed, have sometimes admitted that there were certain fevers dependent on inflammation of the digestive organs; but they have never maintained that what are called idiopathic fevers are solely dependent on this cause. It is only since the new physiological doctrine has been broached that this theory has obtained.

141. Authors being ignorant that the mucous membrane of the small intestines may be inflamed without causing local pain, have, one and all, attributed to *enteritis* the symptoms of *peritonitis*.

142. It is by acute gastro-enteritis, (always bear in mind that this term means inflammation of the *mucous membrane*, and not of the peritoneal coat,) the first effect of the contagious virus, that small-pox makes its debut. Cutaneous inflammation supersedes the gastro-enteritis, and soon terminates, if the pustules be few in number; but if they are very numerous a severe cutaneous inflammation takes place, from the confluence of the pustules. This is the *secondary*, or, as it is called, the *suppurative fever* of small-pox.

143. It is by gastro-enteritic, catarrhal, guttural, or bronchial inflammation, that measles and scarlatina commence. It is in these phlegmasiæ that all the danger consists—namely, by their extending to the brain and viscera, in the sympathetic manner already described. The angina in scarlatina becomes often fatal; and the bronchial inflammation of measles is sometimes dangerous by passing into pneumonia, and interrupting the function of the lungs.

144. Hypochondriasis is the effect of a chronic gastro-enteritis acting sympathetically on a brain already disposed to irritation.*

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* If for *gastro-enteritis*, M. Broussais substituted *gastro-intestinal irritation*, we would entirely concur with him in this proposition. In our present number will be found an interesting case of hypochondriacism, in the person of a late general officer, with the appearances on dissection. The disease lasted twenty years, and did not kill the patient at last, for he died suddenly of an other disease. There was no vestige of chronic gastro-enteritis; but there was unequivocal proof of gastro-intestinal irritation for 20 years

145. Most cases of dyspepsia, gastrodynia, pyrosis, cardialgia, and bulimia, are the effects of chronic gastro-enteritis.*

146. Umbilical colics, of an intermittent or remittent character, with constipation, and without tenesmus, indicate certain shades of chronic inflammation of the mucous membrane of the small intestines, especially if they be unaccompanied by any symptoms of peritonitis. In general, this phlogosis is of an indolent and painless character.

147. The mesenteric glands do not inflame but as a consequence of *gastro-enteritis*—and this double phlegmasia constitutes *tabes mesenterica*. 148. These glands do not inflame from simple peritonitis.

149. Hepatitis is generally *consecutive* of gastro-enteritis, except when produced by external causes.†

150. Chronic gastro-enteritis is the cause of hepatic engorgements, and of those yellow and fatty enlargements of the liver, which we sometimes find in the bodies of those who die even of phthisis.

151. The dropsies of persons who have suffered from abuse of spirituous liquors, or inordinate drastic purgatives, &c. &c. are the effects of chronic gastro-enteritis invading the inner coats first, and slowly spreading to the peritoneal covering of the intestines.

152. Bulimia is the effect of a chronic gastro-enteritis, with predominance of irritation in the stomach and duodenum. This phlegmasia may exist in a degree that permits the assimilation of a quantity of aliment far greater than is necessary for the wants of the system—*hence result plethora, polysarcia, (obesity,) and, sooner or later, the establishment of a great irritation in the brain, the joints, the kidneys, the heart, or, in short, on any point where accidental stimulation is more than commonly applied.*‡

153. These bulimial gastrites are often produced by the abuse of too stimulating a diet, and also by the abuse of medicines

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previously to death. We refer the reader for an investigation of this subject to the second edition of Dr. Johnson's Essay on MORBID SENSIBILITY of the STOMACH and BOWELS, page 58—69.

* The same remark applies to this proposition. Broussais should have used the term GASTRO-INTESTINAL IRRITATION. But it is to be remembered that this distinguished pathologist looks upon inflammation as merely a high grade of irritation; and this point being kept in view, we have little hesitation in agreeing with M. Broussais.

† This includes, or ought to include, climatorial influence, as intense solar heat, which experience has proved to be a powerful cause of hepatitis.

‡ In this term, M. Broussais appears to comprehend that voracious, or at least intemperate system of eating and drinking, which, sooner or later, ter-

called *stomachic*, administered when the gastric irritation is only in its incipient stages.

154. The exuberant assimilation and nutrition which take place in bulimial gastric affections, are always accompanied by more or less of local and sympathetic pains; which pains ultimately increase, so as to render the digestion uncomfortable and laborious, even when the appetite still continues in excess. This laborious and painful digestion ends in loss of relish for food, emaciation, nausea, vomiting, and all the thousand phenomena of dyspepsia. Sometimes acute gastritis supervenes on this state, when improperly treated by stimulants, irritating diet, &c.

155. When a long course of stimulating ingesta has greatly exalted the sensibility of the stomach, the treatment of dyspeptic affections is tedious and difficult. In these cases, it is rare for the sensorium to escape some degree of sympathetic irritation, and more or less of hypochondriacism is the consequence. Scirrhus or cancer of the pylorus occasionally terminates the scene.

156. Acute inflammation of the mucous membrane of the digestive apparatus often passes to the peritoneal covering, causing peritonitis.

157. Acute hepatitis is never mortal, unless the inflammation spreads to the mucous or peritoneal surfaces, the brain, or the thoracic organs.* 158. The same of nephritis.

159. The acute peritonitis of parturient women generally commences with inflammation of the uterus.

160. Long continued irritations of the mucous membrane of the vagina very frequently produce inflammation of the cervix uteri, and also of the ovaries—hence scirrhus and cancer of the uterus, ovarian diseases, &c. 161. Scirrhus of the cervix uteri is often, however, the effect of violence suffered by this part during parturition.

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minates in gout, apoplexy, disease of the heart, dropsy, &c. With the latter part of the proposition, as marked in Italics, we perfectly agree with the talented author; but we have some difficulty in admitting that either *irritation* or *inflammation* in the mucous membrane of the stomach and duodenum can be the *cause* of the bulimial repletion.—We would be more inclined to consider them as the *effect* of such intemperance—because such effects almost invariably follow such modes of living, sooner or later.

* This proposition is imperfect, or rather erroneous. Acute hepatitis may end in suppuration destructive of the organ and of life, without involving the other *structures*, though, of course, their functions must be disordered in the last stage of any mortal disease. In hot climates, a complete disorganization of the liver is not an uncommon termination of inflammation, of which M. Broussais ought to have been aware.

162. Painful menstruation announces a permanent focus of irritation in the cervix uteri; and cancer of this organ is not an uncommon result, about the cessation of the catamenia, unless this irritation be removed long before that period.

163. Peripneumony often commences with catarrh or inflammation of the mucous membrane of the bronchia. The superior lobes of the lungs are then the principal seat of the inflammation. If this becomes chronic, tubercles are often developed in the summit of the parenchymatous structure, and phthisis follows.

164. Peripneumony of the middle and inferior portions of lung often commences without previous bronchial catarrh.—If it becomes chronic, tubercles will be developed, and phthisis will follow.

165. Pleurisy wastes the lung of that side by the pressure of the effused fluid, often without inflammation of that lung; but, in the mean time, pneumonia is frequently developed in the lung of the opposite side; and if this becomes chronic, phthisis will succeed.

166. Pleurisy predominating in the pulmonary pleura, without effusion or atrophy of the lung, sometimes induces inflammation of that lung, and may, by passing into a state of chronicity, develope tubercles.

167. The tubercles which succeed inflammation of the mucous membrane of the bronchia and air-cells are engendered in the same manner as enlargement of the mesenteric gland in chronic enteritis.

168. I have seen pulmonary tubercles without previous inflammation. Even those which are found in the lungs of children, at birth, do not appear to be independent of this cause.

169. Tubercles form in all kinds of constitution, where chronic inflammation of the lungs or intestines has prevailed—but more readily in those who are of a scrofulous disposition, or, in other words, who are predisposed to irritations of the lymphatic system.

170. Cartilaginous, osseous, and calcareous depositions appear to be produced in the same manner as tubercles; and the same applies to melanosis, scirrhus, and various other morbid growths.

171. The term *phthisis pulmonalis* only expresses the disorganization which is the *product* of chronic inflammation of the pulmonary parenchyma, and, therefore, is a bad term for the disease; chronic pneumonia is a better word, specifying the tissue in which the inflammation commenced.

172. Inflammation often takes place in the serous covering

of the heart, and is termed pericarditis. It is characterized by the seat of the pain, and by the depression and irregularity of the circulation, producing a sense of anguish in the region of the heart, lypothymia, and fear of death.

173. The heart also becomes inflamed through the medium of its internal or lining membrane, and the disease is then commonly called carditis. This phlegmasia affects in preference the arterial orifices, where it becomes chronic, and where it produces obstacles to the course of the blood, as thickenings, vegetations, ossification, &c. and ultimately hypertrophy of the heart, or aneurism. Irritation or inflammation of the locomotive system (rheumatism) is apt to be transferred to the heart, and give rise to this kind of disease.

174. Any irritation of the various tissues of the body, sufficiently intense to affect the function of the heart, may there produce phlogosis of either of the two membranes above mentioned, and also of the internal surface of arteries.

175. Acute inflammation, ending in suppuration, of the muscular structure of the heart, is a very rare disease; but a wasting or softening of the muscular structure often takes place from long-continued inflammation of its membranes.

176. The worst effects of cardiac aneurisms are those which result from impediment to the circulation of the blood, as asthma, hæmorrhage, dropsy, &c. But *gastritis* seldom fails, in the end, to become associated with cardiac disease, especially if the treatment be stimulating.*

177-8. Ossification and dilatation of the aorta are often owing to chronic inflammation of the coats of the vessel. The same may be said of many other arteries in the body, when they become aneurismal.

179-80. Scrofulous affections are *irritations* of those exterior tissues of the body where the albuminous portion of the blood abounds; and as redness and heat are very little developed in such cases, the term inflammation is hardly proper. Should we not call them sub-inflammations? Real inflammation is not seldom superinduced on this state, or accompanies it through its whole course.

181. *** 182. The skin is susceptible of chronic irritation, which is specially determined on the excretory apparatus of that

* We believe there is much truth in this. There is not a more constant symptom attendant on enlargement and other diseases of the heart than dyspepsia, and great irritation in the stomach. This part of the complaint every day masks the original malady; and even when the disease of the heart can no longer be overlooked, it is too often considered as sympathetic of the gastric disorder. Of this we have seen many deplorable examples.

tissue, and on the absorbents, changing the structure and disturbing the functions of the cutaneous surface.

183. The lymphatic glands are never enlarged, hardened, or softened, but in consequence of a species of irritation, which we may denominate sub-inflammation.

184-5. *** 186. The cellular membrane or tissue, next after the mucous membranes, is the most susceptible of acute inflammation. Suppuration often takes place in these parts before the inflammation which precedes it is manifested by external signs.

187. Deep-seated abscesses, with resorption of pus, keep not up hectic fever, except by the irritation which is communicated to the different viscera, either by sympathy, or by the irritating impression of the resorbed pus. This fever, therefore, is not idiopathic.

188. Slow and indolent engorgements of the cellular tissue, even when the phenomena of inflammation are absent, are owing to an *exaltation* of their irritability (sub-inflammation)—and never to an opposite state.

190. When irritation has subsisted for some time, under the form of inflammation or sub-inflammation, in the membranes about the joints, the coats of arteries, and other parts not very extensible, there is an extravasation of albumen, and the fluid parts of this becoming absorbed, calcareous concretions are formed, as we see every day in gouty people. These concretions, then, are the *effects* of the previous irritation. 191. *** Relates to melanosis, of which little is known.

192. External cancer, the product of irritative degeneration in the tissues where albumen and fat predominate, is always accompanied by inflammation. It is not to be considered incurable, as long as it is merely local.

193, 4, 5, relate to cancer, and are unimportant.

196. Inflammation of the serous membranes assumes two forms:—The one acute, very painful, and attended with much fever:—The other chronic, indolent, and nearly apyrectic. This last blends itself with the sub-inflammations.

197. Inflammation of the mucous membranes presents [redacted] more forms and degrees than that of the serous tissues; be[redacted] as the organs of internal senses, and the constant movers of various sympathies, the mucous surfaces are endowed with a sensibility and irritability infinitely more varied and intense than the serous membranes, which, in a state of health, possess neither sensibility nor sympathy.

198. All hæmorrhages not caused by external violence, and

which are spontaneous, are *active*, whatever may be the degree of debility in the subject.*

199. Spontaneous hæmorrhages depend on an irritation of the sanguiferous capillaries:—The disposition is greatly increased by hypertrophy of the heart.

200. Spontaneous hæmorrhages have the same *remote* causes as the inflammations; hence we see hæmorrhage and inflammation complicated with one another—produce one another—and substituted for one another, in the same, or in different places.

201. The *neuroses* are active or passive, whilst the *phlogoses* are necessarily all active.

202. The *active neuroses* consist in exaltation of the sensibility in the nerves of relation, and of the muscular and vascular contractility, under the influence of these nerves. They are capable of affecting the loco-motive muscles, the viscera, and the capillaries, wherever the nerves of relation (cerebral and spinal) predominate. Examples, the neuralgiæ.

203. The *passive neuroses* consist in the diminution or abolition of sensibility and muscular contractility. They can only be complete in the loco-motive and sensitive apparatus.†

204. The active and passive neuroses acknowledge for cause, in most cases, an inflammation situated in the cerebral apparatus or in some of the viscera.‡ The passive neuroses depend sometimes on a sedative influence operating on the nerves of the part where the neurosis appears.

205. In the fixed active neuroses of the apparatus of relation (brain, nerves, muscles, and organs of sense) the capillary circulation is excited, and fulness of the vessels obtains. Inflammation or sub-inflammation exists or threatens to form in

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* Dr. Parry came to nearly the same conclusion. He assigned as cause, an *increased* momentum of the blood. Broussais attributes it to local irritation, by which an afflux of blood is drawn to the part. The latter seems the more ingenious theory of the two; but we may demur against the *activity* of the hæmorrhage in all cases. Something must be allowed for the debility of the containing vessels, and the broken down state of the blood. Where these last obtain, as indicated by the symptoms and constitution, we see no reason why the term *passive* hæmorrhage should be blotted out of the nosological chart.

† Paralysis and loss of any sense exhibit examples of the passive neuroses.

‡ This is nearly the doctrine of the late Dr. Parry, who almost discarded the nervous system from his pathology, and attributed all nervous diseases to local determinations of blood. There is a very curious coincidence between these two great pathologists—certainly without any communication or knowledge of each other's sentiments. The doctrines of Broussais were as unknown to Parry, as those of Parry were to Broussais.

whatever tissue the neurosis is manifested, as well as at the origins of the nerves supplying the said tissues or parts. In the mean time the nervous trunks themselves are only concerned in transmitting the sympathetic influences from one point to another.

206. When, in the neuroses of the viscera of the chest or abdomen, there exist pain, or convulsions of the loco-motive muscles, there are two points of irritation, which are either in a state of inflammation or a condition that nearly borders on it —one point in the viscera, and the other in the encephalic apparatus.

207. Obstacles to the circulation do not derange the functions of the principal viscera, unless these obstacles are situated in the heart, or in the large vascular trunks.

208. In cases of obstacle to the circulation, dropsy results from the stasis of blood in the venous apparatus.

209. The sudden augmentation of dyspnœa in aneurism of the heart, from the exertion of locomotion, proves the influence of the muscular system on the venous circulation.

210, 211. Inflammatory congestions and also the secretions prove the influence of the capillary system on the circulation of the blood; while the process of absorption shows the influence of the capillary system or the progression of non-sanguineous fluids.

212. The malaise and anguish which attend material obstacles to the circulation, sooner or later determine gastric inflammation :—stimulating medicines accelerate the progress of this last affection.*

213. Scurvy is a peculiar condition of the solids and fluids, the product of imperfect assimilation, and having various causes, among which may be reckoned cold bad air, mental afflictions, and unwholesome aliments. Extravasation of the fluids is one of the most prominent phenomena of the scorbutic diathesis, because this malady renders the tissues fragile.† The viscera and the encephalic apparatus resist this extravasation longer than the other parts of the body.

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* We have already alluded to this sympathetic affection of the stomach in diseases of the heart. The fact is certain, though the explanation is difficult, except on the principle of reciprocity of sympathy between the two organs.

† This, we think, is almost admitting the existence of *passive* hæmorrhage, notwithstanding the argument adduced in the next proposition, that inflammation may be complicated with, or even sometimes produce scorbutic extravasation.

214. The phlegmasiæ readily associate with scurvy, but are not caused by it—on the contrary, they are often the cause of scurvy, as we daily see in the gums. 215. Unimportant.

216. Dropsy acknowledges for its physiological causes, obstacles to the course of the circulation, sanguineous and serous —chronic phlegmasia—diminished capillary action—imperfect assimilation—and debility.

217. Irritation presents natural intermissions in a state of health.*

218. *Morbid* irritation may also present an intermittent character in any organic apparatus or system of the body.

219. Morbid irritation may assume the *continued* form in an apparatus, in a moderate degree, with periodical exasperations, falling back, in the intervals, to its ordinary level. In these intervals, when moderate, it excites but few sympathies; but in its stage of exacerbation it developes a great number:—these are the *remittent* fevers of authors.

220. Intermittent and remittent irritations are always accompanied with exaltation of the sensibility and contractility, and consequently with congestion, as well in the principal seat of the irritation, as in those parts which sympathize with it.

221. These intermittent and remittent irritations are, in fact, phlegmasiæ, hæmorrhages, neuroses, or sub-inflammations, which exhaust themselves, and terminate by some critical metastasis or discharge. If they fail to terminate in this way, they become *continued* phlegmasiæ, hæmorrhages, neuroses, or sub-inflammations, acute or chronic.

222. Intermittent and remittent fevers are periodical *gastro-enterites*, in which the encephalon and the other viscera are sympathetically irritated, the same as in continued fever, and may become the principal seats of irritation or even inflammation, periodical or continued.

223. Each regular paroxysm of intermittent fever is a signal or sign of a gastro-enteritis, the irritation of which is transported to the surface, especially to the cutaneous exhalents, and thus a crisis of the paroxysm is produced. If the irritation is not

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* We think it would have been more correct for M. Broussais to have said, "*excitement*, or rather excitability, presents natural intermissions, in health;" and we rather think that this is what he means, for in the next proposition he talks of *morbid* irritation presenting intermissions. In this country we consider *all* irritations as morbid—giving the term *excitement* to the healthy state.

See an interesting paper on intermittent irritations in the Periscope of this number.

thus completely dissipated, the fever is remittent;—if not dissipated at all, the fever takes the continued form.*

224. The masked, latent, disguised, or local fevers of authors, are periodical irritations of different systems or apparatuses, internal or external, but in which the heart is little influenced, and the general temperature but slightly exalted.

225. Those fevers which are called pernicious or malignant, do not differ from other fevers, except in violence, and in the danger of local congestions.

226. The dropsies which succeed intermittent fevers, always depend on one of the five causes or physiological modifications indicated in proposition 216.

227. The more ordinary external causes of intermittent fevers are atmospheric vicissitudes;—but every thing which acts on the animal economy in the way in which atmospheric vicissitudes act, may originate, and more especially reproduce these fevers.†

228. The cause of the periodicity of certain painful affections, and of certain convulsions, (as epilepsy,) is not known.

229. Rheumatism is a phlegmasia of the fibrous and synovial structures, produced by atmospheric transitions; and it is not therefore surprising that it should sometimes take an intermittent or periodical character.

230. The articular periodical phlegmasiæ become wandering

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* The doctrine of fever as here delineated, is, to say the least of it, extremely ingenious. Indeed, with a very slight modification, it stands a chance of being the most durable theory which has ever yet been constructed. There is a strong disposition in the professional world to view fever as almost invariably dependent on topical inflammation, though they are not agreed as to the locality of the phlogosis. It has been seen that, in M. Broussais' views, inflammation and irritation are only different grades of the same thing, and there can be little doubt that, in every fever, there is local irritation, in one or more organs. This narrows the question much; for we can readily conceive the existence of both a continued and intermittent irritation, though, when the term is extended to actual *inflammation*, the idea of periodicity is repugnant to our notions of pathology. The only other difficulty which we have in admitting M. Broussais' theory, is the *original* locality of the febrific irritation. The extensive chain of sympathies between the stomach and various other organs, and still more the intimate relation that subsists between the sensorium and the stomach, must render it extremely difficult to say where the irritation first commences. Upon the whole, the theory of M. Broussais, thus explained, and somewhat farther modified, appears to us extremely feasible, and we do not see any material objection that can be urged against it, in its application to practice, which is a consideration of great consequence.

† We much wonder that such an observer as M. Broussais should have passed over marsh exhalations, which are unquestionably the most powerful and frequent of all causes of intermittent fevers. These invisible agents we suppose he includes in the latter part of the proposition.

or migratory through the way of sympathy, and terminate by crises; or by fixing themselves on some particular part, in an acute or chronic form, in the same way as visceral phlegmasiæ do, when left to themselves.

231. Gout does not differ from common inflammation of articular structures, except in the circumstances attendant on the age, manner of living, and idiosyncrasy of the individual.

232. Unimportant.

233. That form of articular inflammation called GOUT, is often, but not always, complicated with a degree of chronic gastro-enteritis, which modifies its progress, and invites irritation towards the viscera.

234. The liver is only affected consecutively in gout, in consequence of the gastro-enteritis which accompanies it.

235. The irritation of gastro-enteritis is communicated to the articulations through the channel of sympathy, in the form of arthritis or gout; but this is only when the articulations have been predisposed to inflammation by atmospherical vicissitudes or other causes.

236. The irritation of the articular phlegmasiæ is propagated to the stomach sympathetically, and may there become the predominant affection occasionally.

237. The multiplied infirmities by which the aged subjects of gout are tormented, can only be attributed to the sympathies between the head, stomach, and other organs, which, in time, establish sub-inflammations, neuroses, or even phlegmasiæ of various organs and parts.

238. In chronic phlegmasiæ of the articulations, the irritation always tends to proceed from the circumference to the centre. This indeed is the case with all other inflammations of the periphery.

239. The transformation of gout into an other malady is nothing more than a change of seat in the principal point of irritation—the phenomena being modified by the functions and structure of the part to which the irritation moves.

240. It is absurd to give the appellation of gout to an affection which has not been preceded by articular inflammation: for to say that gout is transferred to the brain, when mania supervenes on articular phlogosis, is as much as to affirm that mania is transported to the great toe, when an attack of gout supersedes an attack of mania.

241. In retrocessions of gout, it is of no other use to inquire what was the part inflamed previous to the metastasis, than to be able to determine the best part to which it may be recalled, by way of revulsion.

242. Revulsion is difficult, if not impossible, in cases of what is called "MISPLACED GOUT," except where the organ attacked is free from structural disease.

243. The narcotic vegetables, and alcoholic substances, in large doses, excite gastro-enteritis, (at first without ulceration,) and engorge with blood the encephalic vessels, producing, in bad cases, convulsions. They also engorge the lungs.

244 to 253 relate to the action of various acrid and powerful substances on the stomach and bowels. They need not be detailed here.

254. Putrid animal substances which the stomach is unable to digest, produce gastro-enteritis, with irritation and engorgement of the brain, giving rise to the symptoms of typhus by the intensity of nervous phenomena. But ulceration of the mucous membrane does not take place, except consecutively, and after a certain duration of the inflammation. 255. Putrid fish and poisonous champignons produce the same effects.

256. All the irritating and escharotic vegetables, animals, and minerals, when applied to the skin in sufficient quantity, develope in the mucous membrane of the stomach and bowels, in the brain, and sometimes in the lungs, an inflammation analogous to that which is produced on the surface of the body, through the means of irritation transmitted from the periphery to the centre.

257. Poisons of every kind, if injected into the veins, occasion gastro-enteritis, if they are not sufficiently powerful to occasion death before the inflammation has time to form. 258. The same may be said of putrid animal substances or sanies inserted into the living flesh, or injected into the vessels. They produce the same effects as if taken into the stomach.

259. The bites or stings of venomous animals, where poison is left in the wound, determine a local phlegmasia, passing quickly into gangrene, according to the intensity of the irritation. The more virulent of these prove fatal by their deleterious influence on the nervous system. But if life continues long enough, the inflammation is repeated in the principal viscera, especially in the line of the primæ viæ, with a strong tendency to gangrene. The weaker poisons of this kind are restricted in their operation to the production of local inflammation.

260. The bites of mad animals determine also inflammation of the mucous surfaces, which is often repeated in the pharynx, brain, and even in the lungs. The delirium and convulsions appear to be consequences of these irritations and inflam-

mations, varying according to the degree of susceptibility in the individual.

261. Worms in the bowels seem often to result from derangement of the intestinal secretions, and the increase of temperature attending inflammation of the mucous membrane, more or less acute.

END OF THE PATHOLOGICAL DIVISION.

We have now brought to a close the two sections on PHYSIOLOGY and PATHOLOGY, and hope we have done a service to the English profession, by presenting them with a more complete view of the doctrine of Broussais, or, as it is called, the NEW PHYSIOLOGICAL DOCTRINE, now so extensively prevailing on the continent. In our next Number we shall complete the subject, with the section on THERAPEUTICS, which is very extensive, and embraces a variety of the most important topics of discussion.

II.

MEDICO-CHIRURGICAL TRANSACTIONS.

[Vol. XIII. Concluded.]

ART. I.

Hydrometra and Dry Gangrene. DR. THOMSON.

BEFORE we make any remarks on Dr. Thomson's case, we shall lay the particulars of it before our readers.

Mary Rae, aged 65, was admitted a patient in the Infirmary of the Chelsea Work-house, April 1, 1823, having previously enjoyed good health, and reported herself of temperate habits till very lately, when grief for the loss of a husband induced her to take to the use of spirituous liquors. She had borne two children. On admission, she laboured under acute rheumatism, for which she was bled, purged, and took colchicum and oil of turpentine. In two months she was discharged convalescent; but, in five months afterwards she returned, being emaciated, and complaining of pain connected with a tumour in the abdomen, which she had perceived six weeks previously. This tumour was situated in the lower part of the abdominal cavity.

rising as it were out of the pelvis, and occupying the iliac, hypogastric, and umbilical regions. She appeared as if six months gone with child. An indistinct fluctuation was perceptible, and the least external pressure excited pain. It was suspected that the case was a diseased ovarium; but the accompanying symptoms denoted a greater derangement of the system than usually attends ovarian dropsy. These were, want of appetite, nausea, furred tongue, quick pulse, irregular bowels, scanty and high-coloured urine. She was confined to bed, and put on vegetable diet. Mercurials, so as to affect the mouth, were also prescribed, and the bowels kept open. Leeches, blisters, &c. were employed. The increase of the swelling was prevented, but the sensation of pain, on pressure, remained. In this state she continued till the middle of January, 1824, when the left foot was found to be affected with dry gangrene, which gradually extended to the knee. As a feeble pulsation could be felt in the popliteal artery, it was deemed advisable to amputate, a line of separation having been formed between the sound and gangrened parts. But the operation was delayed in consequence of the reluctance of the patient, till the 29th February, when it was performed four inches above the knee. Every thing appeared to be going on well till the third day, when she suddenly sunk exhausted.

Dissection. On laying open the abdomen, a body resembling the gravid uterus, occuping the whole pelvic and much of the abdominal cavity, was discovered, on the anterior surface of which was the urinary bladder, so that it must have been perforated, if a trochar had been employed to evacuate the fluid during life. The tumour was easily ascertained to be the uterus filled with fluid. It was partially sphacelated in its peritoneal covering. The stomach, colon, and other intestines, were glued together in many places, and in some were sphacelated. The uterus was found to contain eight quarts of liquid, of a dark brown colour, and slightly coagulable by heat. The os uteri was completely obliterated—the ovaria small and flaccid, but otherwise natural. The aorta was found to be ossified about two inches above its division into the iliacs. The right iliacs were healthy, but the left were ossified in several places.

Dr. Thomson makes some physiological and pathological remarks on this case, which we may shortly notice. He attributes the gangrene to the ossification in the large trunks, impeding the circulation. We confess we can not see how a ring of ossification in the aorta or in the iliacs, should prevent a due supply of blood in the parts below the said ossifications.

In respect to the hydrometra, it is rather a rare disease in its pure and unmixed state. Dr. Denman, indeed, has doubted the

existence of such a disease, concluding that what is called hydrometra, is probably no more than one large hydatid. The case in question, however, is a proof that such a disease can exist.

ART. II.

Cases of Destructive Inflammation of the Eye, and of Suppurative Inflammation of the Integuments, occurring in the Puerperal State, and apparently from Constitutional Causes. By MARSHALL HALL, M.D. and JOHN HIGGINBOTTOM, Esq.

It occurred to these two gentlemen to witness together, at distant periods, the progress of several cases of a singular morbid affection about to be described. It took place at from five to eleven days after delivery, and was always preceded by some serious indisposition. In one case there were all the symptoms of intestinal irritation and of exhaustion from uterine hæmorrhage—in a second, there was protracted diarrhœa—and in the others much fever, with functional derangement of the bowels. In one remarkable circumstance, however, they all concurred—the left eye, and not the right, was always the one affected.

"In one case the eye was affected but a day or two, and but slightly, when the patient died. In two there was great chemosis, the transparency of the cornea was destroyed, and the eye appeared collapsed, during life; and in a fourth the patient survived the ulceration and sloughing of the cornea, the total destruction of the organ, and the subsequent healing of its anterior part.

"Soon after the appearance of the disease in the eye, there has also appeared a local inflammation situated in the integuments, and first observed on the hand, but found, on a careful examination, either at the same time, or soon afterwards, on the inferior as well as superior extremities. In one of the cases only, there was no such cutaneous inflammation; but the patient having been bled, there were inflammation and suppuration of the vein. In two of the cases the cutaneous inflammation was observed on the hands and feet, rather diffuse and little elevated, but extremely tender to the touch; in the fourth, that in which the patient survived the loss of the eye, the patches of inflammation were very numerous and extensive, and led to equally numerous and extensive formations of pus.

"All remedies appeared to be unavailing. Early bleeding, mercury, and purgatives, and afterwards bark and opium, were fully tried without effect. The sinking of the vital powers alone appeared to suspend the course of this terrible disease.

"From the preceding observations it may be conjectured that this morbid affection has a constitutional origin. This inference seems warranted by all the patients having previously experienced

some indisposition, chiefly a deranged state of the function of the bowels, and by their all suffering from more than one local disease at the same time." 191.

Five cases are given in illustration. We can only spare room for the particulars of one, as an example.

Case. Mrs. B. aged 27, of sanguineous temperament, was safely delivered, on the 13th November, 1823, without much hæmorrhagy. On the second day she became affected with fever and derangement of the bowels, which continued till the eleventh day, on the morning of which, a slight redness of the left eye was discernible, confined to the external canthus. At the same time a slight blush of redness was observed on the back of the right hand, and afterward along the ulna. In the evening the eye was affected with slight chemosis, the conjunctiva protruding in a loose flabby state, and with scarce any redness. On the succeeding morning, all the morbid appearances were augmented—the chemosis was extensive, the cornea was clear, but covered with a slight film of mucus—no appearance of ulceration at the junction of the cornea with the tunica conjunctiva—the eyelid was slightly swollen—the pupil not contracted. The inflamed parts of the hand and arm were extremely red and painful, with slight fluctuation. The patient soon sunk.

In a postscript, Dr. Hall informs us that Mr. Ward, surgeon of Olerton, observed a similar instance in his own practice. It also occurred after a tedious labour and much hæmorrhage. In this case the eye-ball burst, and the patient soon died.

We are totally at a loss to account for such an occurrence as that described by the gentlemen above-mentioned. The circumstance, too, of the left eye being invariably affected, is perfectly inscrutable.

Art. III.

Some Particulars of a remarkable Disease of the Heart, attended with Partial Discoloration of the Skin. By James Johnson, M.D.

As this case is short, and very curious, we shall give it in the words of the author, especially as no comments can be made upon it in this Journal.

"Mrs. A. aged about 30 years, had enjoyed good health till the birth of her first and only child, about seven years ago. From that time she had often been ailing, though she could give no distinct or satisfactory account of her symptoms, they being such as are generally denominated nervous or hysterical. About eighteen months

ago, however, her health got seriously worse, after an attack of inflammation about the womb and lower part of the abdomen. About this time a singular change took place in the colour of the skin, in all those parts (and those only) which are usually exposed to the air and light, viz. her face, neck, and hands. The colour of those parts resembled that of a very dark Mulatto, though the skin of all other parts of the body was remarkably fair and delicate.

"When I first saw Mrs. A. about a month before her death, she presented the following symptoms. Her appetite was voracious, being hungry in the course of a few hours after a hearty meal. She had a sensation of sinking at the stomach when empty, but no distinct pain. She was easily put out of breath by any corporeal exertion, though she could expand her chest, and take in a very large volume of air without the least difficulty. Her bowels were not disordered, and the secretions were natural. Her muscular strength was exceedingly impaired, notwithstanding her voracious appetite, and she felt an indescribable malaise and restlessness, for which she could assign no reason. Her tongue had a very remarkable appearance, being rough and chapped. Her pulse was habitually so feeble, as to be with difficulty distinguished at the wrist; but her most distressing complaint was what she called 'fits of heaving,' quite different from sickness of stomach, and never attended with vomiting or any discharge from that viscus. I saw her in one of these fits, and it appeared more allied to globus hystericus than any thing that I could compare it with. These fits were attended with faintness, and once or twice with syncope. She had consulted many medical men, and taken various medicines, but with little or no benefit.

"I examined the thorax and abdomen very minutely, but could discover no proof of disease in either of these quarters. The chest sounded well in every part, and the respiratory murmur could be heard every where by the naked ear and by the stethoscope. The pulsations of the heart, however, could not be felt or heard in any part of the chest.

"With the warm weather, in the early part of June, her debility made rapid progress, and the 'fits of heaving' became more frequent and distressing. She now lost her appetite, and on the 19th of June she expired, after suffering dreadful restlessness, constant jactitation, and sense of unutterable distress internally, for three or four days previous to her decease.

"Being often pressed for an opinion respecting the nature of the malady by her husband, (an eminent barrister,) and by her friends, I stated my conviction that there was some organic disease of the heart, the precise nature of which I could not determine. I was requested by Sergeant A. to examine the body, which I did in the presence of Mr. Haines and Mr. Evans, surgeons at Hampstead, on the 20th of June. To them I reiterated the above opinion before the dissection.

"*Examination.*—Every organ and structure in the body appeared in a state of the most perfect integrity, except the heart. The right ventricle of the heart was enlarged in its capacity, but its parietes

were exceedingly extenuated, being not thicker, in any part, than the seventh or eighth of an inch. The parietes of the *left* ventricle, on the contrary, were full three quarters of an inch in thickness, and the capacity of this chamber was so much lessened that it would scarcely admit the fore-finger. There was nothing remarkable in the valves, or in the great vessels leading from the heart, with the exception of the cava inferior, which was of a most extraordinary size.

"*Remarks.*—It must be obvious that all equilibrium between the two sides of the heart was destroyed, and that the important function of the circulation was carried on in the most imperfect manner. It appeared to the medical gentlemen present, and to myself, that the left ventricle was incapable of throwing out more than two or three drachms of blood at each systole; and this explains the extreme smallness and feebleness of the pulse, as well as the general debility. The difficulty which such a heart must have experienced in transmitting the blood from the lungs to the general circulation, may also explain the breathlessness on any muscular exertion; but the change of colour in the skin, and the distressing *heavings* are phenomena which are not so easily accounted for.

"As this was a case which excited great interest, and produced much contrariety of opinion and speculation among medical men, during the life of the amiable patient, I trust the *post mortem* examination may not be entirely devoid of interest, or even practical utility.

"My principal object in submitting these notes of the case to the consideration of the Society, is to draw their attention to the very numerous and anomalous symptoms produced by a defect in the central organ of the circulation; symptoms which are very frequently referred to other sources, when not elucidated by rigorous examination after death." 216.

Art. IV.

On the Medical Properties of the Subcarbonate of Iron. By John Elliotson, M.D. Cantab. &c. &c.

Our readers are aware that Dr. Elliotson made some experiments and published them, on large doses of the pulvis antimonialis. In this paper he proposed to show that very large quantities of the carbonate of iron may be taken also, without producing any inconvenience, but with decidedly good effects. The usual dose of this medicine is from fifteen to thirty grains twice or thrice a day. Many, however, have lately exhibited it in drachm doses, or even larger, since the medicine has become so useful in neuralgic affections. Dr. E. has ascertained, by numerous trials, that it may be given in doses varying from two to four drachms every six—nay, every four hours—that the dose of half an ounce may be commenced with at first, without any preparation, and may be continued many weeks, without inconvenience. However large the dose, neither head-

ache, thirst, heat, foulness of tongue, griping, nor constipation followed, or were increased if previously present. But the question occurs, is there any advantage from these large doses over smaller ones? This question our author is unable to answer. "A drachm dose may perhaps be as useful as one of half an ounce."

"Reasoning analogically, one would conceive that large quantities must be more serviceable. Cinchona, for instance, will cure an ague in doses of a drachm, given every two hours, when two or three table-spoonfuls of the decoction three times a-day, or even a drachm of the substance given not more frequently, altogether fails. We are accustomed to increase the doses of all medicines for the purpose of increasing the effect. In the very example of subcarbonate of iron, practitioners prescribe sometimes what they consider a small dose, sometimes what they consider a large one, according to the force which they judge necessary to bring up against the disease; and they increase the quantity as the disease proves obstinate. Now since it appears that the dose of this medicine has a much wider range than has been thought, and that the terms large and small must relate to quantities different from those to which they have been hitherto applied, the same habit of practice would incline one to these large doses in obstinate cases, unless such comparative observations, as have been just alluded to, prove them to be no wise superior to what have hitherto been considered large." 238.

Cullen seems to have been of opinion that the good effects of preparations of iron have often been missed by the medicine being given in too small doses. And Sydenham was in the habit of giving the simple rust of iron freely. It is curious that Cullen mentions the rust to have been given in the quantity of six drachms in one day; but observes that he had found hardly any stomach capable of bearing more than a third of that dose. Before concluding these preliminary observations, Dr. E. begs to say, that a scruple of the sulphate of iron, made into pills, with the extract of gentian, is borne just as well as half an ounce of the subcarbonate—and that every observation which he has made respecting this dose of the *latter* applies nearly to that of the *former*.

Eight cases are related by Dr. Elliotson in illustration, of which we shall give the particulars of two.

Case 1. This was one of paralysis agitans, in which Dr. E. tried the subcarbonate, after first having brought out a crop of pustules on the limbs by the tartar-emetic ointment, and purged him freely with oil of turpentine. He also went through a course of the sulphate of zinc, and was blistered on the occiput. Dr. E. then prescribed the iron in half drachm doses every eight

hours, with leeches to the temples, and a perpetual blister to the forehead. The dose was gradually increased until the patient took three drachms for a dose, when the shaking was greatly abated, and the man finally left the hospital perfectly well.

Case 2. The first case induced our author to try the same medicine in chorea, in the person of an emaciated pale girl of 14 years, who had universal chorea. It was one of the most frightful cases our author ever saw, she being unable to walk or stand, and could scarcely be kept in bed without the assistance of two or three persons. She was continually screaming —never slept—and had suffered some epileptic fits. She was first purged with the submuriate of mercury, and then the subcarbonate of iron was commenced in half drachm doses every six hours. It was gradually increased to a drachm, and in six weeks she was discharged cured.

All the remaining cases are those of chorea, and in all our author was successful. Yet Dr. E. does not attempt to extol the medicine as a specific. He is confident the iron may be often given safely when there are headaches, foul tongue, and torpid bowels; it being prudent, however, in such cases, to draw blood, and open the bowels. Dr. E. has failed with the largest quantities of iron in epilepsy, cancer, and lupus; but found it very beneficial in chronic neuralgia, and various chronic ulcerations and pustular diseases, as well as those diseases of debility in which it is so justly celebrated. Dr. E. gives a case where the sulphate was used in chorea instead of the carbonate, and with beneficial effects. Dr. Elliotson deserves the thanks of the profession for his zeal and ability in trying the remedial efficacy of certain medicaments in unusual doses. As far, however, as regards the carbonate of iron, we are disposed to think that, when very large doses are given, a great proportion of the medicine passes the stomach and bowels unchanged, and without doing more than much smaller quantities.

Art. V.

Notes of a Case of Hydrophobia, with some Remarks on the Pathology of that Disease. By Geo. Gregory, M.D.

The phenomena of this case, during the miserable life of the patient, present nothing very particular. On dissection, the spinal marrow was found free from disease throughout its whole extent. There was some slight effusion on the surface

and in the ventricles of the brain. The stomach and bowels were in a healthy state—lungs gorged with blood. The internal surface of the pharynx, epiglottis, larynx, œsophagus, and trachea, appeared of a coffee-ground colour, or almost black, which colour remained after the parts were sponged. There was no breach of structure in any of these parts. The inner coat of the aorta, and large arteries proceeding from it, was of a bright scarlet colour. Heart and pericardium healthy.

Dr. Gregory observes that, although the appearances on dissection, in hydrophobia, vary exceedingly, yet in this case, at least, it is impossible not to connect the symptoms with the appearances about the throat, on dissection. "These phenomena tend to the conclusion, that the symptom which gives name to the disease, is directly dependent upon some form of inflammatory action in the larynx and pharynx, and that the true nosological situation of hydrophobia is in the genus cynanche." The practical inference which our author would daw from these data is, "that when a man has been bitten by a rabid animal, he should be closely watched about the end of the fourth week, and on the first appearance of any marks of nervous irritation or uneasiness about the throat, those remedies should be adopted, of whatever kind, which the practitioner would have employed, had the real nature of the disease been unequivocally ascertained." We fear that it is upon the *prophylactic* treatment we are solely to rely in the present state of our knowledge of hydrophobia. That prophylaxis, we imagine, will hinge on cupping the wound well—then excising it, and establishing a suppuration by means of caustic.

It is proper to state, however, that, in a paper by Mr. Hewitt, of the Bombay Medical Establishment, on the bites of a mad jackall, one patient was apparently saved, after the hydrophobic symptoms had commenced, by rapidly inducing ptyalism. This corresponds with the experience of Mr. Daniel Johnson, as published some years ago in this Journal.

We have now finished the present volume of the Medico-Chirurgical Transactions, and presented our readers with almost every fact contained in it.

We shall look with impatience for another production from the same source, and hope it will not prove inferior to its predecessors.

III.

I. *On the Use of the Chlorate of Soda, and the Chlorate of Lime.* By A. G. LABARRAQUE. Translated by JAMES SCOTT, Surgeon. Octavo, pp. 36. Highly, Fleet Street, 1826.

II. *An Essay on the Use of Chlorurets of Oxide of Sodium and of Lime, as powerful Disinfecting Agents, and of the Chloruret of Oxide of Sodium more especially, as a Remedy of considerable Efficacy, in the Treatment of Hospital Gangrene; Phagedenic, Syphilitic, and ill conditioned Ulcers; Mortification; and various other Diseases.* Dedicated by Permission to the Right Honourable ROBERT PEEL. By THOMAS ALCOCK, Member of the Royal College of Surgeons in London; Member of the Medical and Chirurgical Society, &c. &c. Octavo, pp. 152, with a Plate. Burgess and Hill, 1827.

IT is now some thirty or forty years since the fumes of nitre and salt, as disinfecting agents, were sold to the good people of England by Dr. Carmichael Smith, at a very handsome sum of money—the price being fixed by the same "collective wisdom," that gave a magnificent reward of 5000 pounds to Mother Steevens for some calcined egg-shells. At the time we mention, it was usual to see the wards of hospitals, the decks of ships, the floors of prisons—nay, the private chambers of the sick, ornamented with rows of pipkins exhaling the magic fumes that were supposed to annihilate those invisible beings called contagious or infectious *miasms*. True it is, that these acid fumes did render the air of the wards of hospitals and other domiciles of the sick, much less repugnant to the olfactories; and we had reason to believe that the confidence inspired by the new disinfectant among nurses and attendants, did, in some degree, check the spread of contagious diseases. But it was found, in the end, that, to correct a fetid smell, and to destroy a febrific or contagious miasm, were two different processes, not equally performed by the fumes of nitro-muriatic acid. The new disinfectant was soon exchanged for pure atmospheric air; but not before Dr. Smith had realized the motto on his crest—"FUMUM VENDERE."

The world is now grown older, if not wiser than it was, and specifics are put forth with more modest pretensions, and more in their true character than formerly. But the history of mankind, and especially of medicine, warns us to distrust the first

accounts of extraordinary powers or virtues in medicinal substances—not because the experimenters wish to deceive; but because they are, themselves, liable to be deceived. "Experientia fallax."

It appears that M. Labarraque was led to the discovery of the powers of the substances under consideration, while endeavouring to destroy the infectious odour, and prevent putrefaction in the materials used for the manufacture of catgut and other strings made from the intestines of animals.

The CHLORURET of LIME is only a new name for the old oxymuriate of lime; and the dry preparation is a *sub-chloruret of hydrated lime*, and is well known in the arts of this country by the term BLEACHING POWDER. Of the preparation of this we shall say nothing, as few will take the trouble of preparing it, when it can be procured so cheap from the great manufactures. The formula for the chloruret of soda—or, as Mr. Alcock terms it, the "chloruret of oxide of sodium," we shall give from Mr. Scott's pamphlet, as the shortest.

"CHLORATE OF SODA.

Pure Carbonate of Soda, 2½* Kilogrammes.
Distilled Water, 10 Kilogrammes.

"Mix in a Bottle that will be about one quarter empty—then into a Glass Balloon Bottle, (of about Two Quarts,) with a long neck and a large mouth, put the following mixture.

Hydro-Chlorate of Soda, 576† Grammes.
Peroxide of Manganese, powdered, 448 Grammes.

"In the mouth of the Balloon Bottle, lute a large curved tube, and one also in the shape of an S; the first tube is inserted into a bottle containing a small quantity of water, a similar tube passing from this into the Bottle containing the saline solution. The lutes being dry, a mixture of 576 Grammes Sulphuric Acid, and 448 Grammes water, is to be poured into the Balloon through the curved tube S, heat is next applied and gradually regulated until the disengagement of Chlorine gas ceases.

"TEST.

Powdered Bengal Indigo, one part.
Concentrated Sulphuric Acid, six parts.

"Mix and add Nine Hundred and Ninety-three parts of distilled water—one part of the Chlorate of Soda, mixed with Eighteen parts of this liquid, should deprive it of colour.

"The saline solution should be of the specific gravity of 12°‡ by Baumè's hydrometer—if the liquid be too concentrated, add the requisite quantity of water; if, on the contrary, the solution is too

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* A Kilogramme is 2lb. 3oz 5dr. Avoirdupois.
† A Gramme is about 15½ Grains.
‡ 1,089 of common standard, temperature 55, Fah.

weak, add as much of the carbonate of Soda as will bring it to the proper strength." 36.

It is from Mr. Alcock's work that we shall draw principally in this article, that zealous and intelligent surgeon having not only witnessed the powers of the chlorurets in Paris, but also in his own practice, public and private, in this metropolis.

It appears that the disinfection of corpses was proposed to Government by Labarraque, by means of the Chlorurets, and the council of health adopted his suggestions. The expense of conservation of the dead bodies in the MORGUE (a receptacle for bodies found dead, &c. in Paris, till claimed) did not exceed, in a whole year, the sum of 150 francs. Labarraque then made experiments upon living bodies, in the hospitals of Paris, and furnished the medical officers of these establishments with gratuitous supplies of the disinfectants. In 1823, he proposed plans for rendering healthy the lazarettos, and "showed the possibility of rendering the propagation of contagious or infectious diseases impossible." A favourable report was made at the end of a year—and a prize of 3000 francs was decreed to the author by the Royal Institute.

"The disinfection of dead bodies has been proved many times after inhumations of several days, of several weeks, and of several months, and always with the same success. The corpse of Louis XVIII. was presented to the public *without any odour*, the disinfecting chloruret of M. Labarraque having been used." P. x.

Medals and honours of various kinds now began to shower down upon M. Labarraque's head, and the cross of the Legion of Honour was soon suspended on his breast. Should the Government of this country take up the subject, in the sane manner as that of France, Mr. Alcock has laudably offered to conduct a train of experiments demonstrative of the disinfectant powers of the chlorurets. We hardly expect that ministers will turn aside from their politics for the prosecution of the sciences. They certainly "manage these things better in France." *There*, the hospitals and scientific institutions are more immediately under the control and management of Government, and rewards and honours are consequently more frequently dispensed to men of merit. *Here*, there is no such system. Every thing is left to private enterprise, and such returns as the public itself may think fit to award.

Mr. Alcock has endeavoured, in this little work, to collect the scattered information relating to the subject, and to add such further observations as his personal experience has afforded. For this attempt we think he deserves the approbation of every well-wisher of medical science.

M. Labarraque observes, that it is a fortunate circumstance to be able to arrest animal decomposition, and thus, as it were, to annihilate several causes of death—but it is a still more fortunate discovery, the power of arresting decomposition in the living body. "I have had the happiness to observe this *prodigy* performed by the application of the chloruret of oxide of sodium (chloruret of soda) to wounds." Sincerely do we hope that this *prodigy* will be often witnessed in this country. But we have lived long enough in the world to have little faith in prodigies—and especially in medical prodigies. We think the powers of the disinfectants, as to the arrest of decomposition in the dead body, however, as very fairly established by what took place in the Morgue. To this mournful receptacle all the bodies found in the Seine, and in Paris and its environs, are brought for inspection. "Even when bodies have been far advanced in putrefaction, the affusion of a solution of chloruret of lime in water has immediately removed the putrid odour." An apothecary at Lyons writes that during the month of July, 1825, the thermometer was above 90°, and the corpses, a few hours after death, spread an odour so infectious, that during the mass which was celebrated for the repose of their souls, the priests and the friends forgot—the former the resignation of their ministry, the latter their affliction—to complain and to close their nostrils. There was fear of an epidemic, and some of Labarraque's solution was ordered to be thrown upon the sheet when the coffin was opened, to ascertain the presence of the corpse. The result was most satisfactory.

'The mode of employing the chloruret of lime to prevent or retard putrefaction is very simple, and may be effected at a trifling expense.

'To one part of chloruret of lime add forty parts of water: mix them thoroughly, and pour off the clear liquid.

"With this liquid the entire surface of the body should be freely sprinkled by means of a watering-pot, or in any other convenient manner. This sprinkling should be repeated twice or oftener, daily, according to the temperature, degree of putrefaction, &c.

"Should putrefaction be far advanced, or the period the corpse is intended to be kept be considerable, it is better to surround the body with a sheet moistened in the solution, and to renew the moistening of it frequently. By these means all putrefactive odour in the apartment may be perfectly obviated." 4.

Another important occasion on which the chlorurets may be employed, is when the body of any distinguished personage may be required to lie in state. Mr. A. informs us that the people of Greece were deprived of the pleasure of beholding

the corpse of Lord Byron, in consequence of this putrefaction; while that of Louis XVIII. was approached by his subjects with safety, and without any disagreeable odour being exhaled.

Another purpose is that of enabling medical men to examine bodies that have been interred, when suspicions arise as to the cause of their death. We published the account of Orfila's examination of a body that had been buried thirty-two days, and in the hottest season of the year. When the grave was opened, the odour was insupportable; but aspersions with solution of chloruret of lime, "produced marvellous effects," for the infected odour was quickly annihilated. In this case the presence of arsenic was detected in the stomach. *See Vol. I. of this Series, p. 289.* We shall quote from Mr. Alcock's work the following directions of Labarraque respecting the management of this disinfectant on such judicial occasions as the above.

"'Before approaching a corpse in putrefaction, a tub should be procured in which may be put a load of water (24 litres, about 49 pints;) pour into this a flagon, (half a kilogramme—1lb. 1oz. 10½dr. avoirdupois,) of the chloruret of lime, and stir the mixture.

"'Dip a sheet in the water contained in the tub, and unfold it so as to be able to withdraw it with facility, and particularly so as to be enabled to extend it very quickly over the corpse.

"'To effect this, let two persons open the sheet and place it in the liquid, holding the ends upon the edges of the tub: let this be carried to the side of the body in putrefaction, and at the same instant let the wet sheet be drawn out of the tub and laid over the body.

"'Soon afterwards the putrid odour ceases.

"'If blood or any other fluid proceeding from the dead body have flowed upon the ground, pour upon this liquid one or two glassfuls of the chlorureted water; stir with a broom,—and the putrid odour will disappear.

"'This operation, however, ought not to be thus performed whenever the liquids spilled upon the ground may become the subject of a chemical analysis: in this case the greatest quantity possible should be carefully collected; and it is when this has been effected that the disinfection of the ground should be performed in the manner above-mentioned.

"'If the infection have spread in the neighbouring places, in the corridors, stairs, &c. the infected places are to be sprinkled with one or two glasses of liquid chloruret of lime, and the fetid odour will cease.

"'Care must be taken to moisten frequently with the liquid contained in the tub, the sheet which covers the corpse: the reproduction of the putrid odour will be thus prevented.

"'As soon as the body has been removed, the sheet which has served for the disinfection should be washed in large quantities of water, dried and folded."

The disinfectant power of the chlorurets promises to be of great advantage in the prosecution of practical anatomy, to the pursuit of which so many obstacles now present themselves. We do not say that dissection wounds are dangerous in proportion to the advance of putrefaction; but there can be no doubt that the exhalations of a putrid body must be prejudicial to the student's health, and therefore it would be very desirable that such exhalations should be corrected. But, as Mr. Alcock has justly observed, there is no royal road to such an extinction of putrid effluvia, without great attention to cleanliness and ventilation. Mr. Alcock throws out some excellent hints as to the important subject of hygiene in the dissecting-room, which we recommend to the attention of those who have the charge of such establishments.

In private dissections, it is often of importance to be able to preserve parts as long as possible, where time is fully occupied by professional pursuits.

"The mode," says Mr. Alcock, "by which I have preserved parts fit for dissection during weeks, and even months, sometimes in summer, has been to macerate them in warm water, taking care not to overheat the subject, and to inject into the arteries a solution of nitrate of potash, either saturated or very nearly so, at the temperature of from 120 to 130 degrees; to let this be retained a few minutes, and then to turn the stopcock so as to allow any part that might remain in the larger vessels to flow out; then, the temperature being kept sufficiently high to prevent the chilling of the injection, to throw in gradually a small quantity of fine injection, previously heated by immersing the vessel containing it in hot water; and lastly, to throw in rather briskly the wax injection of a proper temperature, so as to fill the larger vessels and to propel the fine injection into the capillaries. When cold, the dissection may be commenced. By these means the beautiful and florid appearance of the muscles is preserved or heightened: but the salt is apt to effloresce on surfaces which are long exposed: and if the cuticle be removed the skin becomes horny, the adipose substance oily, and, in short, in such a condition as to render the tracing of the cutaneous nerves impracticable. These inconveniences may be obviated by conjoining with the above the use of either the chloruret of lime or of the oxide of sodium—for this purpose aspersions will seldom be required. If, when the dissection is not continued, the integuments, &c. be replaced, and the parts be surrounded with cloths moistened in a solution of the chloruret, the preservation may be effected for an indefinite length of time, sufficient at least to afford opportunity for a careful and complicated dissection, even when only a very few hours of each day can be devoted to the subject."

The importance of a disinfectant, such as the chlorurets, will

be easily appreciated where *pathological* investigation is to be prosecuted.

The disinfection of hospital wards, sick-rooms, &c. is next considered. And here we must be allowed to express our scepticism respecting the disinfectant powers of the chlorurets, till much more precise and specific evidence is put forth than what we find in the statements of Labarraque, supported even by the talents and discernment of Mr. Alcock. The proofs adduced in favour of the nitro-muriatic acid fumes, previously to the parliamentary reward, were infinitely stronger than those here brought forward, and yet few, if any, of those who have been in scenes of infection and contagion, now place confidence in the disinfectant properties of the said gases. We were, therefore, a little surprised that Mr. A. should have written the following paragraph.

"The efficacy of acid fumigations, and still more decidedly those by chlorine, has been *sufficiently* established; the former by the sanction of a parliamentary reward." 54.

If this parliamentary reward be a sufficient testimony, Mrs. Steevens' eggshells cannot be questioned as lithontriptics. But we apprehend that it is the experience of mankind, and not parliamentary remunerations, that must be looked to for proofs of this kind. The proofs adduced by Labarraque are too vague to be relied on—witness the very first which he sets forth.

"M. Labarraque relates experiments made during *two nights* at the Bicetre in eight wards, inhabited, and very infected. These wards, to the great satisfaction of the patients, and of the physician who attended them, have been purified, by means of sprinklings made with one bottle of the concentrated chloruret, diluted with thirty parts of water."

But, once for all, we object to the coupling of the words *purification* and *disinfection*. Bad smells may be corrected, and contagion may still remain. We have always upheld the doctrine, that *ventilation* is the best and safest disinfectant. To *remove* the infected air, is surely more effectual than to correct or cover a fetid exhalation floating in it, since we cannot tell what the contagious miasm is, or whether it really have any fetid odour or not. We shall take Mr. Alcock's own words in another place.

"From the preceding observations those who have not devoted themselves to the study of medicine, might be led to suppose that the processes of disinfection before pointed out, should be all that might be required to render salubrious the foul wards of hospitals and other places occupied by the sick; this would be an unfortunate conclusion, for the fact is far otherwise: although the pestilen-

tial effluvia diffused in such an atmosphere be capable of immediate correction, yet unless the cause be removed, the regeneration of similar effluvia is not prevented. Hence, therefore, the most rigid attention to cleanliness and appropriate ventilation is essential to the welfare of the sick; for although the chlorurets may destroy the putrid miasmata, they cannot furnish that supply of pure air, without which health cannot be sustained, nor disease be successfully treated. Many persons are in the habit of using fumigations of vinegar, of aromatic pastiles, and of diffusing perfumes to cover any bad smell which may pervade the sick chamber; these practices are however founded in error; *for if due attention be observed with respect to cleanliness and ventilation, not only will the accumulation of disagreeable effluvia be prevented; but the apartments of the sick will be kept as sweet as any room in a well regulated dwelling house; there is no perfume equal to a perfectly pure atmosphere, and the best test of that purity is the total absence of any odour whatever.*" 65.

In these sentiments we perfectly agree. *With* cleanliness and ventilation there will be little or no danger—*without* these, we should have no confidence in the chlorurets, the fumes, or the perfumes. Where the "pure atmosphere" can not be put in requisition, we have no objection to the chlorurets, which may lessen or destroy fetor, inspire some mental confidence in the agents employed—and, perhaps, lessen the virulence of contagious miasms, though of this specific power we are far from having sufficient proofs.

In respect to the purification of putrid water—the disinfection of work-shops—the purification of stables—the disinfection of privies, drains, reservoirs, &c. we can say nothing from observation; but are bound to believe, from the statements of Labarraque and others, that the chlorurets are useful correctors.

There are some circumstances occasionally let out in these documents and statements, which have tended somewhat to lessen the high estimation in which we were disposed to contemplate the character of Labarraque as a "distinguished philanthropist"—the term applied to him by Mr. Alcock. It appears that the composition of the disinfectant in question, was kept a secret for a considerable time by Labarraque, and names given to it to disguise or veil its real nature. And why? Because Labarraque feared "the *islanders* would be able to rival and *undersell* his countrymen in this manufacture!

"If this manufacture," says he, "were known in Great Britain, no doubt these islanders would soon endeavour to deprive us of a product which they would export in great quantities to Spain and Portugal, &c."

Self-love and social are said to be the same; and we suspect that the philanthropy of Labarraque, like charity, began at

home. Mr. Battley may now adduce a *philanthropic* reason for concealing the composition of the liquor opii sedativus, lest the *Continentalists* should rival and *undersell* his countrymen in the manufacture. It is wonderful how few things, in this world, go by their proper names!

The following passage will make the inhabitants of London and Edinburgh too proud.

"In Paris, the general want of sewers renders the emptying of reservoirs of excrements a frequent and abominable nuisance, which is sometimes inflicted upon the inhabitants of the most respectable hotels, without the slightest attention to the disinfecting process which M. Labarraque has pointed out, so little is a man a prophet in his own country.

"An English gentleman at one of these hotels observed, on returning home at night, some old dirty carpets hung up at the bottom of the staircase, and some ill-looking fellows lounging about. He could not proceed to his apartment without passing this barrier, and inquired what it meant. The answer was, '*pour empecher le mauvais odeur:*' But as there was then no bad smell, the work not having commenced, he did not anticipate what was to follow. He went to bed, but was awoke by an intolerable and suffocating stench. He got up to open his window to admit fresh air: but far from finding relief, the tubs which contained the filth occupied the street just under the window of his apartment, which was the *entresol*, (or room between the parlour and the first floor,) and the evil was so much increased that sleep became impossible, and he really thought he should be suffocated before morning: the thorough impregnation of clothes, furniture, and every thing in the room, was the least part of the infliction; for he suffered a severe attack of bronchial inflammation, which rendered him unable to pursue his avocations for several days." 38.

It is affirmed that a train of dry chloruret of lime placed under the doors, upon such occasions, will destroy or neutralize these mephitic exhalations. As there is a very large manufactory of this disinfectant in Glasgow, we hope the good folks of "AULD REEKIE" will expend a couple of baubees weekly in chloruret of lime, for the *nether* regions of their mansions. Indeed a sprinkling of Labarraque's wash would do the streets of the modern Athens no harm, now and then, on a hot summer's morning. We strongly recommend the commissioners of sewers and the directors of gas-works, in this metropolis, to employ the chloruret whenever they open drains or mend the gas-pipes in the streets. The hydrogen effluvium which now salutes the olfactories at every turn in London, is little less abominable than the "*mauvais odeur*" which gave Mr. Alcock the bronchial inflammation in Paris.

An interesting account is given, from Labarraque, of the perilous enterprize which was undertaken, under the aid of

the disinfectants, to cleanse an abominable drain, called the EGOUT AMELOT, in Paris. Several workmen had been asphyxied in former attempts—and the sewer had been "infected and impracticable for more than forty years." It was completely cleansed under the guidance of Labarraque himself, without any sinister accident.

After alluding to the observations of M. Lisfranc and Labarraque, respecting the power of the chlorurets over the poison of *small-pox and measles*, Mr. Alcock indulges in the following philanthropic anticipations.

"The beneficial results already obtained in arresting the ravages of infectious diseases, afford a well grounded presumption that the chlorurets may also be effectual in preventing the ravages of the plague, the yellow fever, and other pestilential disorders; and perhaps the period is not far distant when these dreadful scourges will no longer be dreaded, and that the first benefit from the use of such powerful disinfectants, namely, that of allowing patients labouring under these pestilential conditions to be approached with as much security and confidence as when afflicted with the ordinary diseases of our own climate, which under certain unfavourable circumstances are known to be communicable from one individual to another, may subsequently lead to improved modes of treatment, which shall in a great measure divest even the plague itself of its terrors." 59.

We shall say nothing to check such fond hopes; but proceed at once to the application of the chlorurets as remedial means in certain *diseases* to which the living body is subject. We understand that Mr. Alcock has put these means to the test of experience, and, therefore, his observations are the more valuable.

Mr. Alcock sets out with the following assertion—namely, that the chlorurets have not only the power of "destroying the most putrid effluvia arising from animal substances," but also, "the property, when applied to the substances giving off these effluvia, of arresting or destroying the progress of putrefaction." This *progress* of putrefaction, however, refers to the *dead* parts; but a little farther on, Mr. A. informs us that the application of the chlorurets generally "promotes the more speedy separation of the dead parts from the living, than can be obtained by ordinary means."

"It very often is capable of changing the nature of malignant, corroding, and destructive sores, into the condition of simple ulcers: in many ulcers not malignant, it is capable of greatly hastening the cure. In short, though not an infallible remedy, it is capable, under the guidance of medical and surgical skill, sound judgment and experience, of alleviating, and often of totally removing some of the most

distressing and loathsome diseases to which the human body is liable; diseases which too often, uncontrolled by remedies previously in use, have hurried numerous victims to untimely graves." 68.

These sanguine hopes, are, however, considerably damped in the same page, by several observations tending to show that it will be necessary for the surgeon to bring to the aid of his patient all the resources of his art, and abstract from him every thing that may prove hurtful. Under such regulations, directed by such a man as Mr. Alcock, we have no doubt that the chlorurets would be as successful as could be well expected; but where every other auxiliary was put in requisition, it would not be very easy to say exactly how much was due to the chlorurets.

The subject of hospital gangrene is prefaced by an extract of some pages from John Bell's principles of surgery, exhibiting a "vivid representation of verminous ulcer and hospital gangrene." Extracts are then given from the reports of Labarraque, and also the communications of several continental surgeons in foreign Journals, showing the good effects of the chloruret of soda in gangrenous and other ill-conditioned ulcers. Mr. Cloquet, in the Hospital St. Louis, has caused the mortified limb, in several of these extremely severe diseases, to be bathed in the chloruret, diluted with ten or fifteen parts of water, and has given internally from twenty-five to thirty drops of the chloruret in a pint of ptisan. Testimonies are also adduced from Margolin, Sègalas, and many other surgeons, in favour of the remedy in question. At page 84, we find a case of sloughing of the scrotum from extravasation of urine, after bursting of the urethra, detailed from the practice of the Westminster Hospital. The man died. "The chloruret was not used." We are entirely at a loss even to guess at the reason which induced Mr. A. to introduce this case, unless it was to reprehend the neglect of using the chloruret. But men should hardly be censured for exercising their own judgment as to the propriety or impropriety of using a new remedy in a dangerous case, until the utility of the remedy be fully ascertained. This is certainly not yet the case in England.

Mr. A. informs us that Mr. Ollier, surgeon to the Western Dispensary, used the chloruret of soda with great advantage, in a case of gangrene of the cheek, in a boy. The dead parts had separated, leaving a great part of the lower jaw perfectly denuded. "There was a copious and offensive discharge, which must have tainted the air respired by the patient. A solution of the chloruret, in the proportion of one part to six of water, was applied to the ulcerated surfaces, and the dres-

sings moistened with the same solution, from time to time: the putrid odour immediately disappeared." Mr. A. has himself used the chloruret of soda in cases of phagedenic ulcerations of the genitals, "with decided advantage."

In chronic and ill-conditioned ulcers of the legs, Mr. A. avers that the chlorurets are very beneficial, especially when the constitutional disposition on which these ulcers so frequently depend, is carefully attended to.

"The author has used both the chloruret of lime and that of soda as well in the treatment of common ulcers as in those of long standing, and has found the healing process to advance with greater certainty than under the use of the usual applications. When there is much inflammation the use of the chlorurets produces too much irritation to be proper. Sometimes the solution of the chloruret has been combined with the use of cataplasms; but more generally with common dressings, varying the support afforded to the limb according to circumstances." 96.

And, again:—

"The strength of the application should be regulated so as to avoid giving any considerable pain. From three to six proportions of distilled water to one of the concentrated solution, will suffice for ordinary use; but sometimes its immediate application undiluted when the surface is very foul, may be made not only without injury, but with decided benefit. I have witnessed on several occasions the change from a foul grey surface to a clean florid appearance in twenty-four hours, and the relief to the patient's feelings correspond with the alteration in the appearance; but it is not any sudden improvement, which can supersede the necessity of strict and persevering attention: I have known patients inflict upon themselves by a single awkward application of the roller a degree of injury, which has not been recovered from in the course of a month." 97.

In some diseases of the bladder and urinary organs, the urinary secretion acquires a peculiarly offensive odour. This may be prevented, it is said, by putting a few drops of the chloruret of soda in solution, into the chamber pot. In ulcerations of the uterus, it is of great consequence to correct the fetor if possible. For this purpose the chloruret of soda should be diluted with twelve or fifteen parts of water, or even more, and then used as an injection. In this way the fetid discharge from polypus uteri may be corrected.

"Dr. Elliotson, physician to St. Thomas's Hospital, has used the chloruret in a case of diseased uterus which he had previously considered to be almost hopeless: the patient is now in a fair way of recovery." 107.

Burns and scalds are said to be treated with great success in La Pitié, by means of the chlorurets.

" *Cancer* has been disinfected, and experiments are continued on this frightful malady as also on corroding tetters. (Dartres.) Cases of the cure of scald-head have equally been communicated to the Royal Academy of Medicine.*

" *Herpes.* Dr. *Biett*, Physician to the Hospital St. Louis, has made numerous applications of the chloruret of oxide of sodium to herpetic complaints.

" *M. Sanson*, Surgeon in Ordinary at the Hotel Dieu, has disinfected *ulcerations of the mouth*, with caries of the bones of the vault of the palate, and has suspended during some time, the ravages of this frightful malady.

" *Dr. Lagneau* has made use of the chloruret in injections for the *softening of the gums, with ulcerations*, exhaling a great degree of fetor. The condition of the patient has been ameliorated, and after each injection, the odour has been destroyed.

" *M. Reynard*, dentist, has wished to employ the chloruret of oxide of sodium, to arrest the caries of the teeth, and to destroy the odour of the mouth; but he has observed, that this remedy disagreeably excites the salivary glands; and on that account, he thinks it cannot be employed for the toilet of the mouth.

" *Dr. Chantourelle* has long since employed the chloruret of oxide of sodium, diluted with ten parts of water, in two cases of putrid sore throat, (*angina gangrenosa,*) and all fetid odour, so dangerous to the assistants and to the physician, disappeared: these two cases have been communicated to the Society of Medicine of Paris. Very recently also, he has derived great advantage from the use of the chloruret taken into the stomach, in the dose of twenty-five drops in a glass of water, to destroy the disengagement of sulphureous gas, which, very greatly troubled a person poisoned by the hydrosulphuret of potash, already expelled by vomiting. His memoir, read at the Royal Academy of Medicine, has given rise to a learned report, which is noticed under the head Asphyxia.

" In *Ptyalism*, and *ulcers of the mouth*, the author has employed the solution of the chloruret of oxide of sodium, with decided benefit; also in *simple and syphilitic ulcers of the throat;* in the more severe affections of these parts in that form of angina, commonly called putrid sore throat, the relief has been almost immediate.

" In the affections of the throat, in *small pox*, in *measles*, and in *scarlatina*, the use of the chloruret will prove a most valuable auxiliary, although it would not be safe to trust to a local application only to the exclusion of other means, essential to the welfare of the patient." 111.

* Case of a cure of *tinea favosa*, communicated to the Royal Academy of Medicine, by *Dr. Roche*. This affection had resisted the different usual modes of treatment.

Here we must close our analysis of Mr. Alcock's work, which will doubtless obtain an extensive circulation, on account of the simplicity of the remedial agents, and the number and importance of the diseases for which they may be employed. Enough, we think, has been adduced to render it *certain* that the chlorurets of lime and soda possess strong powers of destroying the *fetor* of various disagreeable or noxious substances —but, how far they are capable of annililating the *contagious* or *infectious* miasms of certain exhalations from animal or vegetable matters, this deponent saith not.

To Mr. Alcock and Mr. Scott, the English profession is under obligations, for laying before them the various documents respecting the said chlorurets; and we have no doubt that their labours will be rewarded by the approbation of their brethren.

IV.

De la Paralysie, considerée Chez les Aliénés; recherches faites dans le Service de M. Royer-Collard et de M. Esquirol. Par F. L. CALMEIL, Docteur en Medecine, &c. Premier Interne, en Medecine, à la Maison Royale des Alienés de Charenton. 8vo. pp. 446. Paris, 1826, and Balliere, Bedford-street, Bedford-square, London.

Researches respecting the Paralysis attendant on Insanity, made under the eye of Royer Collard and Esquirol, in the Charenton Lunatic Asylum. By Dr. CALMEIL, of that Establishment.

THE receptacles of the insane present a great number of their unfortunate inhabitants deprived, more or less, of their muscular power, as well as of their intellectual faculties. In some the speech is embarrassed—others walk in a staggering manner, or require a stick—some are hemiplegic or paraplegic—others have little power of any of their limbs—and some are observed with contractions of one or more members. All these disorders of locomotion have been alluded to by writers on insanity under the term *paralysis*. But Dr. Calmeil thinks that we have thus confounded together things that are different. Modern investigations have proved that almost all severe paralytic affections are dependent on organic lesions of the cerebro-spinal system, as hæmorrhage, softening, abscess, sanguineous or serous congestions, wounds, tumours, hydatids, tubercles, or osseous en-

croachments. It is the object, therefore, of our author, to investigate the conditions of the brain and spinal marrow on which the paralysis of the insane depend. Dr. C. appears to be careful in making his observations, and cautious in drawing his conclusions. He admits the difficulty of obtaining accurate or authentic histories of the insane, and therefore suspends his judgment on points where he is not quite certain of the data.

The following inferences, however, he thinks he may draw with perfect safety, as founded on the broad basis of experience.

1mo. Paralyses are very frequent in the insane.

2ndo. The organic lesions which occasion them are almost always situated in the brain itself.

3tio. These lesions are generally as follow: chronic inflammation of the cerebrum, especially on its surface, and in its envelopes—cerebral or meningeal hæmorrhages—sanguineous congestions—softenings of the cerebral and spinal masses—encysted abcesses.

There is no doubt that tuberculous and hydatid growths, &c. may be found in the brains of the insane, as well as in other people; but such appearances are rare, and cause but very few deaths.

By the term "general paralysis of the insane," our author means, in fact, chronic inflammation of the cerebral pulp, but he prefers the term "general paralysis," as expressing a disorder of function, or an effect which will admit of no litigation in itself, though people may entertain different opinions respecting the nature of the organic lesion which produces it. In this, we think Dr. Calmeil has acted wisely.

This General Paralysis of the Insane, is divided by our author into three degrees of intensity, and, in illustration of these degrees, he details between seventy and eighty cases, so that the reader may see the facts on which he grounds his division. These cases form no bad corpus historicum of insanity itself—for whether we regard this disease as a complication or cause of the mental aberration, the facts are not the less valuable, since both the intellectual and corporeal phenomena are detailed. We cannot, however, in this analysis, go into an account of these cases, as they occupy three fourths of the volume; but may, if our space will admit, give a few samples at the end of this article.

1. *General Paralysis in its first degree, or most simple form.*

Embarrassment in the movements of the tongue is sometimes the first symptom of the general paralysis which is to succeed,

and is often well marked before any other symptom of paralysis in the limbs becomes apparent. The speech is not clearly articulated—the patient is obliged to use some efforts in getting out his words, as if he was intoxicated. If asked to put out his tongue, there is little or no deviation to any side perceptible. The mouth is not drawn from its place, nor are the features in the least distorted—in fine, there is only an embarrassment of the speech.

Second degree of Intensity.

The symptom above described having continued a certain time, the motility of the tongue becomes more restrained, and we are obliged to divine, as it were, what the patient is saying or trying to say. He cannot distinctly pronounce any word, and one may plainly see that the tongue is paralyzed. If the patient be sitting, and we desire him to walk across the room, he applies his hands to the sides of the chair or sofa, and raises himself very slowly. When up, he does not step out with confidence, but hesitates, like a child who is just beginning to walk. He goes forward, but sallying from side to side, with unsteady gait. The lower extremities are more affected, in proportion, than the upper; the head droops forward, and the body does not rest in equilibrium on the pelvis. These individuals see, feel, and perceive, but the energy of the senses is much impaired. The skin may be strongly pinched before they express any pain—odours must be powerful before they affect the olfactories, and the patient is often incapable of distinguishing unpleasant from agreeable smells. It is evident, in short, that the portions of brain which preside over sensation are equally affected as those which preside over locomotion.

People in this second degree of paralysis are generally in a state of *dementia*. Their *malproprcté* is extreme, and they are constantly soiling their clothes with their own evacuations. This does not appear to be always dependent on paralysis of the sphincters of the bladder or rectum; for our author has known instances where the urine has come away guttatim, while the greatest difficulty was experienced in overcoming the sphincter ani, either by purgatives or enemata.

During the course of this as of the former period, the general health appears but little affected. The tongue is moist, the appetite considerable, the digestion easy, the heat of skin natural, the pulse moderate and regular—in short, the disease of the brain has yet caused little or no disturbance in the

functions of the body, with the exception of those pointed out.

Third Degree of Intensity.

Nothing can be more deplorable than an insane person in the third degree of general paralysis. Those lesions of the brain which disturb the intellect as well as the locomotive powers, have now reached their highest grade. The wretched patients are incapable of motion, and prostrated both in mind and body to a state of negative life—or rather a species of slow agony (espèce d'agonie lente) during which the body dies piecemeal, presenting the most horrible spectacle of human misery and imbecility!

In some people the tongue is so paralyzed that they cannot utter a single word, and only send forth vague and confused sounds. The lower extremities refuse all support to the body —and in ulterior periods of the complaint, they cannot even move the limbs in bed. The upper extremities are not paralyzed to the same extent. In these conditions, there is often scarcely a ray of intelligence left, and the attendants are obliged to feed the patients by force. The excrements are passed involuntarily and unnoticed—no impression is made on the individual by external objects, though he still has some slight power of hearing, seeing, tasting, and smelling. Of this deplorable stage of the disease there are, of course, many varieties in degree, according to the progress which the encephalic malady has made.

In respect to the interior functions of the body, the following observations are recorded by our author. The digestion, which was so active in the beginning of the malady, now languishes, the strength diminishes, the flesh wastes, eschars form on the back, &c. dropsical swellings take place in the scrotum, lower extremities, and abdomen—and, finally, some of the organs of the chest or abdomen give way, the lungs or the gastric and intestinal mucous membrane, and then death soon terminates the scene.

Let us now proceed to examine into the alterations found in the brains of those who die in this state of general paralysis.

1. *Vascularity of the Cranium.* Sometimes, on stripping the dura mater from the internal surface of the skull, the blood will ooze out in small drops; and the same is occasionally seen when the pericranium is detached. The spongy texture, or centre of the bone is usually found red. On the other hand,

the plates of the skull are sometimes much attenuated, or almost perforated, especially about the vertex, occasioned, in general, by the growth of vegetations from within.

2. *Injection, &c. of the Dura Mater.* When this is separated from the skull, it is sometimes found covered with blood. If this be lightly sponged off, the vessels of the dura mater will be found very much injected, and the sinuses distended with black blood. Sometimes it is perforated, the same as the cranium, by the growth of vegetations.

3. *Vegetation of the Pia Mater.* Granulations of this membrane seldom attract much attention, yet they sometimes become so developed as to be well worthy of consideration. They have been seen as large as the end of one's thumb, and are usually found about the edges of the fissura magna sylvii.

4. *Serous Effusion into the Cavity of the Arachnoid.* This is an almost invariable occurrence where there has been general paralysis. The effusion occupies chiefly the basis cranii, but is more or less diffused over all the lobes of the brain, wherever the arachnoid extends. The serosity is sometimes turbid, or even inclining to be sanguinolent, but is generally limpid.

5. *Albuminous Concretions* are occasionally found developed in the arachnoid, in the form of a consistent jelly, without any trace of organization. They are of various consistency.

6. *Organized False Membranes.* The albuminous concretions formed between the sheets of the arachnoid are organizable. After being a certain time in contact with the serous membrane, these concretions become vascular, and adherent to the arachnoid reflected over the pia mater. These false membranes are sometimes red, sometimes pale. They vary in thickness, and are generally found on the sides of the hemispheres—rarely towards the base of the brain.

7. *Encysted Concretions, with Hæmorrhage.* This species of morbid alteration has been often met with by our author. It consists of a coagulum of blood coated by a layer of coagulable lymph resembling a cyst.

8. *Sanguineous Infiltration between the Lamina of the Arachnoid.* Our author found only one example of this in his numerous dissections. The infiltration was only over one hemisphere.

9. *Œdema of the Arachnoid.* This is hardly ever absent. When the dura mater is removed, we see, in the intergyral spaces, a transparent liquid, raising the arachnoid from the pia mater beneath. It appears to be jellied, and trembles when shaken, but oozes out when the membrane is incised.

10. *Thickening of the Pia Mater and Arachnoid.* In a sound brain, the arachnoid lies so close to the pia mater, and is of such a delicate structure, that it is almost always torn when we attempt to raise it with the point of a probe or scalpel. In the insane affected with general paralysis, this membrane often acquires a considerable degree of thickness and tenacity—sometimes giving it an appearance not very unlike that of the dura mater.

11. *Injection of the Arachnoid and Pia Mater.* This phenomenon is frequently observed. The trunks of vessels seem gorged—the capillaries injected—the membranes themselves of a reddish colour, which they preserve when held up to the light, or even when they are dried.

12. *Adhesion of the Cortical Substance to the Pia Mater.* This is extremely common, and is the most extensive alteration in the kind of disease under consideration. It is almost invariably found, when we dissect carefully, around the whole brain. Sometimes, however, it is only partial, or more firm in one part than in another. When we attempt to pull up the pia mater, it refuses to be raised, or drags a portion of brain with it.

13. *Consistence of the Cortical Substance.* This is almost always less than in health, and is sometimes reduced to the consistence of a rotten apple. This softening generally extends to the depth of a quarter or half a line into the cineritious substance. Sometimes it is very superficial, being little thicker than a coat of varnish.

14. *Colour of the Cortical Part.* This is very various, but rarely pale. It generally presents an erysipelatous, rosy, lilac, violet, or deep red hue. It is also strongly injected.

15. *Consistence and Colour of the Medullary Matter.* This was most frequently found by our author to be of the usual healthy consistence. In some cases, however, he has found a

certain degree of density in the corpus callosum. The same may be said of the colour of the medullary mass. In the majority of cases it is not altered from the natural appearance.

16. *Local Lesions of the Brain.* These are rare; only three examples presented themselves among our author's dissections. One was the cicatrix of an old extravasation of blood—another showed an erosion or ulceration on the surface of the brain—and the third, a tubercle.

17. *Serous Effusion in the Ventricles.* This is a very common occurrence, varying in quantity from one to several ounces. It is generally in proportion to the serous effusion between the meninges. The lining membrane of the ventricles is often very red, and covered with villosities.

18. *The Spinal Canal.* There is generally serous effusion here as well as in the head; but the substance of the medulla oblongata and spinal cord is usually found unaltered.

The above morbid appearances, although they do not satisfactorily account for the symptoms of general paralysis, inasmuch as they are not uniform nor constant, yet, our author thinks, with reason, that they are sufficient evidence of the pre-existence of chronic inflammation in the brain and its envelopes, especially in the cortical substance, and that this chronic phlegmasia is the cause of the general paralysis, by producing organic lesions, of one kind or other, in the encephalon. But granting that no appearance of inflammation is observable in the brain, on dissection, he thinks it is no proof that it did not formerly exist there. The inflammation itself may disappear, yet leave the organic changes behind which produce the general paralysis.

Dissection, he observes, will always furnish arguments for the advocates of "nervous paralysis," or the lesion of a function without lesion of the structure on which that function depends. There can be no question that the disturbance of a *function* must depend on its *organ*; but the alteration in the organ is not always discoverable by the eye, and, as we have said, on a former occasion, it is still convenient to have the distinction between structural and functional lesions retained. Would it not be absurd to say that a man's stomach is *altered in structure*, because a piece of bad news annihilates his appetite in the middle of his repast?

Aspect of the Mental Alienation in the Course of the general Paralysis.

Nothing is more difficult than to classify or arrange the phenomena of mental alienation, so much do they vary in different individuals, and at different periods in the same individual.

1. *Dementia, or Weakness of Intellect.* Almost all those affected with general paralysis, present, from the beginning, a more or less marked state of debility in the intellectual functions. The memory is treacherous, there is an inaptitude for the usual occupations of mind and body—they attach little importance to affairs the most serious, and are unable to comprehend a discourse that is in the least degree abstruse. Their own narratives are full of diffuseness and incoherency. Sometimes the patient is calm and tranquil from the beginning to the end of the disease; but this is not frequently the case. In the greater number of instances, there is—

2. *Dementia and Monomania joined.* The domination of an *exclusive idea*, if we may so term it, is very remarkable in the majority of cases of general paralysis, and often shows itself sometimes before the last symptom appears. These individuals are filled with the idea of grandeur and riches, which they suppose themselves to possess. Intoxicated with their own good fortune, they give themselves up to the most romantic visions and illusions, and their inward joy is manifested in every action, more especially as they believe that all around them partake in their felicity. They are prodigal of places, pensions, riches, and honours to all their friends—in short, they are infinitely more happy than those who actually possess all these good things, but who are cursed with reason and reflection as accompaniments. These monomaniac ideas of riches and grandeur seldom continue to the third period, in general paralysis. At this epoch there is a complete abolition of intellect, and the happy dream vanishes for ever. In a small proportion of cases the monomaniac hallucination is of the sombre cast, of which some curious examples are given by our author.

Dementia and Mania. In a certain proportion of cases, there is violent mania joined with dementia. The agitation and fury of some individuals are extremely difficult to govern.

This state sometimes commences with the symptoms of general paralysis, but more frequently supervenes on it.

Duration and Progress of general Paralysis.

This is various, depending of course, on the slow or rapid march of the cerebral lesion. Some paralytics live eight months, a year, 18 months—some will resist the malady two or three years, but seldom longer than this. The medium duration of life, in this disease, was thirteen months, according to our author's observations. When an individual, however, becomes affected with this terrible complaint, his life is very precarious. To-day he can walk, the debility of the lower extremities appears inconsiderable, and his language can be understood—to-morrow he will be quite incapable of walking, or of articulating a single word. At a time when one would prognosticate that he would live a year, he will be within a few days of his end. The reverse of this is sometimes the case. A man will be rapidly hastening to his grave, in all appearance, and yet the disease will take a sudden turn for the better—but this is rarely of long standing; a relapse is the general result.

Of Prognosis and Termination.

We shall pass over the diagnostic marks of this disease, since they are sufficiently obvious in the description of the malady. In respect to the prognosis, it will readily be perceived that little hopes can be entertained of recovery from this terrible visitation. Royer-Collard, the Elder, who had so much experience of insanity, was in the habit of pronouncing at once the total incurability of general paralysis among the insane. In the course of 20 years' observation he never knew an instance of recovery, under such circumstances. Esquirol is of the same opinion. The observations of our author tend to confirm this melancholy prognosis.

Predisposing Causes of General Paralysis.

The influence of sex on this complaint is very great. We see the disease certainly among the female insane; but among male lunatics we are surrounded, as it were, with the malady. Out of a mass of twelve hundred men, eighty cases of general paralysis were found—or one in fifteen. In five hundred female lunatics, there were only discovered ten cases of the disease—or one in fifty. It is very difficult to account for this disparity. Our author has not observed the disease under consideration,

der the age of 32 years. He has seen fourteen etween the age of 32 and 40—seventy examples d fifty—nine between 50 and 60.

Exciting Causes.

ssions, that of arms has had the most marked nce, as an exciting cause of this malady. A f Napoleon's troops have died of this disease; ct any rank or class of the military! Our author disposition on the part of the soldiery to the r—the excesses into which this class are often moral vivid emotions consequent on mortal he Douaniers (Custom-house Officers) are very probably from their irregular modes of life, in ght along the shores, exposed to the nocturnal f five Douaniers who came into the Charenton r were affected with general paralysis, and the ymptoms of its approach. Exposure to heat, as ment of founders, cooks, bakers, and glass-makers, arked influence in the production of this disease. also, as the passions, in excess, are peculiarly exciting the disease. So are excesses in wine, uous liquors, &c.

Treatment.

em almost unnecessary to take up the subject of a disease which is considered uniformly fatal, in a nger period of time. Our author thinks, however, uld not abandon these cases to nature; and that e that, if recent cases were properly treated, suc- ometimes crown our efforts. In this we agree with s author. It is not much to be wondered at, in- hese cases should seldom or ever be cured by the which are pursued. The symptoms of muscular conspicuous in these cases, have led to wild, and, ngerous medications of an excitant or stimulating er the vain hope that we may give tone to paralysed hen the source of nervous influence is in a state of Witness the attempts made to excite paralysed parts y, nux vomica, strichnine, &c.

he proximate cause of the disease in the brain as flammation of that organ or its coverings, our au- the abstraction of all stimulation. For this pur-

pose, the patient should, of course, be separated from his friends and connexions, where he is not only improperly fed, but where the passions are constantly excited by circumstances which ought to be kept entirely out of his view. The lightest kinds of food—the most diluent and mild species of drink—gentle cooling aperients—warm semicupia—cold applications to the head—local or even general bloodletting, especially if the patient be of a full habit of body—blisters and other modes of counter-irritation at some distance from the head—setons or other permanent drains in the nucha—the moxa or actual cautery:—These and analogous measures ought to be tried in the early periods of general paralysis, especially where it has come on coeval with or not long after, the disorder of the intellectual functions.

We shall now introduce to our readers an example or two from each of the three degrees of intensity into which our author has divided this disease.

Case 1. Le Sieur Jean Baptiste P———, a gens d'arme, aged 46 years, of tall stature, and moderately strong constitution, entered the Military Hospital, complaining of cephalalgia, ringings in the ears, and evincing incomplete paralysis of the tongue, with some embarrassment in walking. On examination, it was found that he had some fixed erroneous ideas—that he slept very little at night—and that he talked much to himself by day. A blister was applied to the nucha, and leeches were applied to the temples, but without relief. As the heat of summer advanced, the disorder increased, and he was sent to the Asylum. He was there questioned as to his history; but no satisfactory answers could be procured. His memory and judgment appeared abolished. He now lapsed into a state of dementia, unaccompanid by any violence. He could not walk with any degree of security—yet the senses of sight, hearing, smelling, and touch, although diminished in energy, still existed. All the other functions of the body seemed little affected. The intellect and the power of loco-motion alone were impaired. This is a specimen of the disease in its first or mildest degree.

Case 2. This and the foregoing case were both under M. Esquirol.

B———, a merchant, aged 47, was addicted to drink in excess, and he was of a very violent and irascible temper. He was in possession of sufficient wealth, and could have no just dread of reverses. He had previously enjoyed good health, and had no hereditary disposition to insanity. In 1821, and without any apparent cause, he became a monomaniac. He thought of nothing but murders, conspiracies, and poisonings. He misconstrued every thing he saw or heard, and was constantly imploring the interference of the magistrate, writing to the minister of police, &c. These were con-

sidered by his friends as eccentricities, and no medicinal or other measures being taken, the disease passed into a chronic state. In 1823, the malady took quite a different turn. The man believed himself possessed of immense riches—offering gold and jewels to his friends in great abundance. He also conceived himself to be a genius of the first rate. For him was reserved the honour of accomplishing all those enterprises in which the ablest men had failed. He began by rebuilding the Tower of Babel; and soon became so troublesome to society, that he was put under restraint, and sent to the Charenton Asylum. Here he appeared very tranquil, and was busily employed in drawing plans of the Tower of Babel. But he soon evinced a considerable difficulty in pronouncing his words, and an inability of walking with a steady gait. The lower extremities gradually lost power, and he could only walk with the aid of a stick, or leaning on tables, chairs, &c. Still he was sensible to pain, he had the power of hearing, seeing, &c. and the various functions of respiration, circulation, digestion, secretion, &c. went on well. During the year which he has passed at Charenton, he continues precisely in the same state.

These two are sufficient samples of the first degree of intensity, in general paralysis of the insane.

Second Degree.

Case 3. A——, a lieutenant of the line, aged 42 years, had made fifteen campaigns under Napoleon and his Generals, always with the character of being a most excellent officer. Of late years he had experienced severe moral afflictions, having been deprived of his rank and honours by circumstances totally independent of himself. These made a deep impression on his mind, and all the efforts of philosophy were exerted in vain to bring peace to a wounded spirit. During eight months he was treated in a provincial hospital; but the symptoms increasing in force, he was sent to the Charenton Asylum. The servant who attended to him all the time he was in hospital, informed M. Royer-Collard, that he had difficulty in pronouncing words from the time he first went there, and that he frequently passed his fæces and urine in bed or in his clothes, apparently unconscious of the circumstance. He also stumbled when any obstacle touched his feet in walking.

In the Charenton, he came up to our author with a staggering gait, and demanded his discharge from the asylum, in a faultering accent, in which he could hardly pronounce more than one syllable in each word—in short, the paralysis of the tongue was quite evident. When upright, he could walk tolerably well; but in sitting down or getting up he staggered, and nearly fell at each attempt. He moved his limbs about in bed, but the muscular debility was unequivocal. He had the use of the five senses; but his intellectual functions were greatly deteriorated. His memory, judgment, and affective passions all disappeared; and whether from inattention, or want of power in the sphincter muscles, he frequently soiled the

bed and his clothes by his excrements and urine. He had fits of great agitation. Night and day he sent forth lamentable exclamations, uttered without any coherence of ideas. His actions were also very extravagant sometimes. All the vital and natural functions were carried on with regularity. At present, it is impossible to understand a word he says—the body is inclined to one side—and he frequently falls down in his attempts to walk.

Third Degree.

Case 4. Victoire L——, aged 56 years, had ceased to menstruate when in her 36th year. She had borne children, and had no hereditary predisposition to insanity. After many years of melancholy attendance on her husband, who died of phthisis, she lost her health, and was the subject of severe vicissitudes of fortune. For twenty years past she has been subject to periodical nervous attacks, sometimes ending in seizures of a convulsive character, but without loss of sense. At the age of 53, her memory began to fail, but still she attended to her domestic affairs, and showed no symptoms of insanity. At 55, mental derangement became unequivocal. She talked to herself—uttered all kinds of nonsense, and did not know her children. She was then confined. Our author examined this woman four months after the insanity had commenced. She could not pronounce the final syllables of words. The tongue was paralysed. Dr. C.'s attention was then directed to the lower extremities, and found that the patient could not walk without leaning against the wall, or on some chair or table in her way. The sensibility of the skin, the power of digestion and that of the other functions were still preserved. The mental alienation and the defect of loco-motive power were the prominent characters of the complaint. The patient could not tell her name or her age—she had no consecutive train of ideas. Yet she was tranquil. In the mornings she was dressed, and then assisted to a sofa, where she continued till she was taken to bed. She would eat when victuals were presented to her, but never asked for them. She had not the least regard to cleanliness, but passed her excrements in bed or on the sofa, apparently without the least consciousness. She was obliged to be treated exactly as if an infant.

Six months rolled away, and still her physical health was tolerably good; but the cerebral disease made progress. The rectum would not now propel its contents, and the urine was constantly dribbling away. She was utterly incapable of walking, and even the upper extremities had little power of motion. Her existence was purely automatic. Eight months from the time she entered the Charenton, and eighteen months after the commencement of the mental alienation, this wretched piece of vegeto-animal mechanism ceased to exhibit symptoms of vitality.

Dissection. The cavity of the arachnoid contained much serosity, calculated at four ounces. There were vegetations on the surface of the brain, which traversed the dura mater, and had worn impres-

sions on the inner surface of the skull, as far as the diploë. Some of these vegetations were as large as the end of the thumb, with a ragged unequal surface. The vessels of the brain were not at all injected. The pia mater separated without any difficulty from the brain, except near the optic nerves, where the attachment was inseparable. In some places, the cortical substance was of a dark red colour. The lateral ventricles contained two ounces of water. The 4th ventricle was covered with granulations. The cerebellum, tuber annulare, and medulla oblongata presented no alteration. The spinal marrow was examined; but the appearances were not satisfactory. The cineritous substance was strongly coloured, and resembled the lees of wine. There was no other morbid appearance in any part of the body.

We shall now conclude. We had considerable difficulty in drawing up this analysis, in consequence of the strange and confused arrangement of the author. But we consider the facts and observations as valuable on this particular point of pathology, the author having had very superior opportunities of investigating the phenomena and post-mortem appearances in the paralysis of the insane. This very striking and frequent accompaniment of mental derangement is far from being well understood by any except those who have the care of the insane. But it is very important for private practitioners, of every class, to be well aware of its nature and of its dangerous character. On this account we think we have not wasted our time or that of our readers, in condensing within a very moderate space the practical and valuable information contained in a volume of nearly 500 pages.

V.

Observations on the Surgical Pathology of the Larynx and Trachea, chiefly with a View to Illustrate the Affections of those Organs which may require the Operation of Bronchotomy; including Remarks on Croup, Cynanche Laryngea, Foreign Bodies in the Windpipe, Wounds, &c. &c. By William Henry Porter, A.M. Surgeon to the Meath Hospital, and County Dublin Infirmary, and to the Dublin General Dispensary; Lecturer on Anatomy, &c. 8vo. pp. 283. Dublin and London, 1827.

The greater part of the work before us formed a portion of a course of clinical lectures delivered by the author in the win-

ter of 1825; and Mr. Porter modestly observes that his sole object in publishing these lectures, is to facilitate the student's progress, and help him to found his future practice on pathological principles, rather than on the unexplained results of numerous cases, the details of which can only burden the memory without ever improving the mind. But we are very much mistaken if Mr. Porter's volume will not prove deserving the attentive perusal of every practitioner, who is anxious to have his ideas well arranged, and his mind prepared for the treatment of a class of diseases that often come upon him with such suddenness and formidable symptoms as to leave him little time to search for information, or fortify his judgment by the help of precedents scattered in various works. Every one knows the importance of diseases which interfere with the functions of the respiratory organs, and the intense anxiety which such diseases create, not only in the patient, but in the bye-standers. To this may be added the fact that, in no case can the surgeon more completely or more decidedly display the efficacy of his art, than in those where he is sometimes enabled to snatch the sufferer from a state of fearful distress and danger, and restore him to one of comparative tranquillity. We allude, of course, to tracheotomy——an operation which early attracted notice, and which has, in modern times, been crowned with the most brilliant success. Mr. Porter has not found any attempt made to arrange those diseases, requiring such an operation, in pathological order—to point out the morbid appearances on dissection—and to connect these with their characteristic symptoms during life.

Whatever may be the case in other operations, Mr. Porter is of opinion that bronchotomy is too seldom practised, and that, when it is performed, it is generally at a period of disease when its success is impossible. Much incertitude prevails in this branch of surgery, and the discrepancy of opinion must have some cause. The aerial conduit, simple as it is in structure, is subject to a great variety of morbid affections, the symptoms of which have much resemblance to each other—some being remediable—some requiring manual operations—and many being beyond the power of art, even as to palliation.

Our author commences his work with a brief view of the phenomena attendant on mucous inflammations (that is, inflammations of mucous membranes) in general, and of the consequences resulting from them. After the pains which we have taken to spread information on these particular subjects, it will not be necessary to dwell much on them here. An extract or two, to show the author's manner, and which may, at the same time, be interesting, will be sufficient. After giving

a neat and a very correct sketch of the anatomical characters of mucous surfaces, in a state of phlogosis, Mr. Porter offers the following observations.

"In reference, however, to the larynx and trachea, it is certain that inflammation will produce purulent expectoration. Far, however, from this secretion being in itself a dangerous symptom, its appearance usually indicates the subsidence of the first inflammatory action, for it is when the vessels have begun to unload themselves, —when the intense redness has disappeared and the swelling subsided, that the purulent discharge appears to flow from the surface of the membrane. It would, in fact, be always a favourable symptom except that mucous surfaces, when once they have taken on any particular action have a strong disposition to continue it to an indefinite period. Gleety discharges form a good illustration of this tendency to the maintenance of a morbid action, and gleets from the pulmonary membrane would perhaps prove as trifling and afford as little trouble as those in any other situation, if it was not that the efforts to expectorate the secretion through the narrow aperture of the larynx, very constantly produce such derangement in the lungs as to cause the most formidable symptoms and often a fatal termination. Indeed, it is frequently extremely difficult to distinguish between the protracted chronic forms of bronchial inflammation and regular phthisis arising from tubercular suppuration, for both diseases exhibit the cough, the nocturnal perspirations, the difficulty of lying on one particular side, and the purulent expectoration. And the similitude may be carried farther, for both very commonly have a like termination, the one dying of hepatized lungs, the other of the suppuration and destruction of the organ, as is observed in tubercular phthisis pulmonalis.

"A very common consequence of inflammations of mucous membranes is, that their sensibility is so altered that they ill endure the presence of those substances, for the transmission of which the organs of which they form a part were originally intended, and they certainly do not operate on them those changes usually performed during health. If the lining membrane of the bladder be inflamed, the viscus will not contain a drop of urine even for a moment, and the patient is perpetually teased with the most urgent calls to expel this fluid. If the urethra be the seat of disease, the passage of the urine over the affected spot causes a sensation of burning pain that is almost intolerable. If the stomach is attacked, not only is the presence of food within it painful and disagreeable, but vomiting is a symptom constant almost without an exception: and it is well known if the intestines are inflamed, as in acute dysentery, that the smallest quantity of mucus is so painful and so irritating, that the patient is frequently called upon to discharge it. In applying this pathological observation to the membrane covering the larynx and trachea, two facts of some importance come before our notice. First, that the passage of the air is more or less accompanied by pain, for at every inspiration the patient shows evident symptoms of suffering, al-

though his anxiety to inflate his lungs, and the horror that always accompanies the dread of suffocation, make him forget the actual uneasiness, in his struggles to procure a sufficient supply of air.—And, secondly, that in acute cases of bronchial inflammation, the arterialization of the blood is but very imperfectly performed." 17.

Inflammation of the aërial surfaces interferes so much with the important process of sanguification, or at least the change effected in the blood while passing through the lungs, that death is often produced by the interruption of this process, independent of any effusion into the bronchial tubes or air-cells.

"It is also remarkable, that cases of very acute bronchial inflammation are rapid, if not sudden in their termination. Sometimes, it is true, the patient perishes in consequence of a rupture of some of the air vessels of the lungs, caused by the violence of coughing, and the organ thus becoming emphysematous, and incapable of performing its office. Sometimes, perhaps, and particularly in aged subjects, a vessel of the brain may give way from a similar cause. On other occasions the mucous membrane is found partially smeared over with a substance resembling thin paste or honey, which might slightly interfere with its healthy functions; but in the great majority of cases I have had an opportunity of examining, the mucous surface appeared red, swollen, and pulpy, rather exhibiting a deficiency of its accustomed secretion, and unaccompanied by any other morbid production, unless a small quantity of serous effusion in the bronchial cells. This serous effusion I have just now noticed is found in greater or less quantity in all subjects that have died by obstructed or imperfect respiration, and has by some been considered as the ordinary product of mucous inflammation. But, independent of the circumstance that such fluid is not observed to be poured out by mucous surfaces in other situations, it is easy to account for its presence on other principles more consonant to the phenomena resulting from disordered breathing. Whenever, either by reason of an insufficient supply of air, or of the presence of inflammation in the membrane, the blood is but partially or imperfectly arterialized, congestion is the consequence, and the vessels, to relieve themselves, begin to pour out their serous contents. If the original cause be longer maintained, the heart is obliged to supply the brain with a fluid inadequate to maintain its healthy tone and actions, and the nervous influence imparted to the whole body, and of course to those parts concerned in the important process of respiration, being impaired, the lungs become still more loaded, and the effusion is continued and increased. Finally the energy of the brain fails, and the muscles of respiration cease to act: and thus the patient dies, not because an effusion of serum into the bronchial cells had caused suffocation, but because inflammation had prevented the arterialization of the blood, and thus deprived the brain of that stimulus which is necessary to the maintenance of its healthy actions." 20.

Ulceration is a very frequent consequence of mucous inflammation generally; but less so in the larynx and trachea than in other situations. Mr. P. divides these ulcerations into three forms—*first*, those which take place at the apertures of mucous canals, assuming the appearance of ragged cracks, spreading irregularly, scabbing, and healing without granulation. *Secondly*, Aphthous ulcers so well known, and generally dependent on irritation in the stomach or bowels. These do not appear to heal by granulation, but by a gradual contraction and approximation of their edges. The *third* form is the most important.

"Then we have a broad, flat sore, sometimes deep, sometimes superficial; its surface covered with a tenacious slough of a bright yellow colour, and its edges uneven, if not ragged. These sores have a wonderful disposition to spread, and frequently we see them rapidly making way in one direction, whilst they are healing just as rapidly in another. They are often met with on the surface of the intestines of scrofulous children, but their most frequent situation is in the throat, where, commencing at the back of the pharynx or on the edges of the arches of the palate, they spread downwards to the larynx, and produce the most formidable consequences. The soft palate is often altogether destroyed by them, and perhaps, after continuing during an immense length of time, and resisting every application and all kinds of medical treatment, they seem to heal spontaneously; but in general their termination is not so favourable. I believe they are most commonly fatal; but death is not induced either by the irritation they create or the ravages they commit, but by the general constitutional derangement to which they owe their origin, and of which they may be considered in the light of symptoms. The most perfect specimen of this form of ulceration I ever witnessed, was in the case of a man who died of laryngeal disease in the Meath Hospital. He was of a highly scrofulous disposition, had contracted a venereal taint, and taken mercury irregularly, so that he seemed to have suffered from a combination of morbid excitements at the same time, under which his health rapidly broke down. On examination after death, a number of broad, flat, irregular ulcerations were found in the œsophagus, with ragged, uneven edges, and their surfaces covered with a tenacious matter of a bright gamboge-yellow colour." 22.

The sloughs and croupy exudations which form on mucous membranes are well known. Mr. P. touches on the subject of spasm of mucous canals, which may happen without, but more frequently *with* inflammation, adding considerably to the patient's sufferings, and frequently proving the cause of death. The spasm, of course, is actually seated in the fibrous structures surrounding mucous canals, rather than in the mucous tissues themselves. Whatever can excite these muscular

structures into inordinate action, will occasionally give rise to spasm. Sometimes it appears to be a sympathetic affection, as in the spasmodic croupy respiration of children, while under the irritation of teething or of deranged digestion, &c.

After these and many other general observations on affections of mucous membranes, our author proceeds to a more particular investigation of those diseases which appear limited to the larynx and trachea, and which occasionally demand surgical interference—more especially bronchotomy. These are, 1. Acute inflammation of the mucous membrane in the child, constituting croup, or cynanche trachealis—2. Spasmodic croup, without inflammation—3. Inflammation of the submucous tissue of the larynx in the adult, or acute cynanche laryngea—4. Thickening of the membrane, or chronic cynanche laryngea—5. Alteration of structure in the laryngeal cartilages, or phthisis laryngea—6. Sloughing and death of the cartilages —7. Pressure on the air passage by abscess, tumour, or other affection. To the above may be added, 8. Those affections of the larynx arising from accident, as the swallowing boiling water, the admission of foreign bodies, and injuries or wounds, as in attempts at suicide.

1. CYNANCHE TRACH. OR CROUP.

Laying aside the vague and arbitrary denominations and divisions of croup, our author founds his classification on dissection, and on this plan divides the disease into three species:— One where dissection shows no appreciable lesion of structure, nor the remains of any increase of action—the larynx and trachea appearing pale, smooth, and polished, without any indication of vascular action or thickening of the membrane. In such cases, the occurrence of death can only be explained by supposing the existence of some irregular action, as spasm. This form is by no means infrequent—is often fatal—its attacks are sudden—and it carries off its victim with great rapidity.

The *second* form constitutes the inflammatory croup, exhibiting, on dissection, all the appearances and all the stages of acute inflammation of the bronchial membrane in the child. It is this form of disease which produces the adventitious membrane of coagulable lymph, and it is by far the most frequent of all the forms. When acute in its symptoms it is very generally rapid and fatal.

The *third* form is very rare, comparatively speaking, as our author has only met with two examples out of a great number of cases. It is where the lining membrane of the larynx has become altered in structure and thickened, so as to interfere with the functions of the organ. The disease is insidious in

its approach, slow in its progress, but inevitably destructive in the end. "It is comparatively common in the adult, where it constitutes one of the examples of chronic cynanche laryngea;" —or, in other words, laryngeal phthisis.*

Passing over the supposed causes of croup, which are very obscure, our author remarks that it is much more common among the rich than the poor, and thinks the reason of this is the pampered state of children in the upper classes of life. Mr. Porter confirms the observations of Bretonneau, Mackenzie, Gregory, Pretty, and other writers, respecting the occasional spreading of the inflammation from the fauces and tonsils to the larynx, there producing the inflammatory exudation. Ulceration also in the throat sometimes spreads to the glottis, and becomes the exciting cause of genuine croup. The symptoms of croup are fairly described by our author, and then the treatment comes under consideration. He complains that, hitherto he "has not been able to discover any attempt to arrange the treatment of croup with pathological precision," in consequence of which, some recommend bleeding, others blisters, the warm bath, emetics, mercury, &c. &c. Even bronchotomy has been recommended as a dernier resource, and success has sometimes crowned the operation. "But there is no form of the disease, or no period of its duration, attempted to be pointed out in which one remedy is more clearly indicated than another." Hence the young practitioner is left in doubt, and either selects by chance, or follows some favourite authority. This, we fear, is the case, and must always be the case, in more complaints than croup.

As, in the commencement, the disease is incipient inflammation, the indication is, of course, to subdue the morbid action, and prevent the production of an artificial membrane. After the exudation is formed, "then (if we possessed the means) the object should be to procure an artificial passage for the air, which would afford the double advantage of preserving the lungs from congestion, and allowing repose to the larynx, whilst, by the common process of nature, the membrane might be separated and expelled." The last stage of croup presents the brain oppressed with blood of an improper quality, and all the energies of the system consequently weakened. The result is then necessarily fatal, "even if free respiration could be restored." The following passage is recommended to

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* In the adult our author must surely have seen more than two examples of this disease; since it is by no means rare. Indeed, it is much more common than is imagined; for many die of supposed phthisis pulmonalis, who fall victims actually to this form of disease.—*Rev.*

the attention of those who consider blood-letting all powerful in acute inflammations. We have often urged the same advice which is here conveyed.

"It will in general be found that cases of recovery in croup have been frequent in proportion to the early adoption of remedial measures, because it is one thing to check inflammation and prevent its effects from taking place, and another to remove those effects when they have been fairly formed; and because it is to the first of these objects that the treatment of croup has been directed. But it appears to me not to be sufficient to diminish an increased action, unless the constitution be kept, until the period of danger is over, in a condition that will render a renewal of that action unlikely to occur; for, however a patient may be brought down, (suppose by blood-letting,) if he is not kept in this state a re-action will take place, and a disposition produced in the system exceedingly favourable to the progress of inflammation. It is this, which causes even large bleedings to be so frequently inefficacious in the treatment of acute diseases, and renders a repetition of them necessary before the affection is subdued: whereas one operation of the kind, if followed by measures calculated to maintain a state of nausea or debility, will usually be sufficient.—In many inflammatory affections, such as those of the head or of the gastric organs, the exhibition of medicines possessing these powers is plainly impossible; but in those of the throat and chest similar objections do not obtain, and I have used them frequently with at least a fair proportion of success." 42.

General blood-letting in croup is preferred by our author to local, as it is desirable to make a direct and considerable impression on the system. On the use of emetics our author makes some good remarks, though he does not seem to hold them in very high estimation. When, however, the child is fat and plethoric—unaccustomed to exercise, and overfed—when he is suddenly attacked, perhaps after a hearty meal, it will be desirable to evacuate the stomach. "But there is this disadvantage attending the practice, that it will be next to impossible to administer nauseating medicines afterwards."

As croup is always attended by spasmodic exacerbations, and these, if not originally excited by intestinal irritation, are always considerably aggravated by it, so purgatives are indicated, but they are too slow in their operation. The same objection, Mr. P. observes, holds against blisters, which should never be applied in the vicinity of an inflammation. In the latter stages, where the lungs are threatened by congestion, they may be applied to the chest. Our author has witnessed the beneficial effects of mercury; "but its use is nearly confined to long-protracted and chronic cases, where there is a tendency in the mu-

cous membrane to become thickened and changed in its structure." Sometimes in large doses it has appeared to be beneficial, even in the commencement of the attack, which our author is unable to account for.

The subject of bronchotomy as a remedy, is then taken up by our author, and the pros and cons fairly considered. After concisely stating the reasons adduced by the advocates for the operation, Mr. P. observes that there are many and serious objections to be urged against the practice. Although the effusion of coagulable lymph is generally confined to the larynx alone, still in a number of cases, the "inflammation commences in the bronchial cells, and spreads upwards in the windpipe." Here the operation would be of no service; "and there is no mode of distinguishing accurately as to what has been the original seat of the disease."* This consideration, our author observes, must involve every case in obscurity, "and render the success of an operation a matter more dependent on chance than on judgment." This objection, as we have shown in the note, is not so valid as Mr. Porter makes it appear to be. The stethoscope would clear away much of the uncertainty. The following objection is of greater weight. "If it be true,

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* Mr. Porter was not then acquainted with the use of the stethoscope on such occasions; but we find, in a subsequent part of the volume a note which is of too much consequence to be passed over.

"At the time the above remarks were written, the same facilities for ascertaining the condition of the lungs did not exist that are enjoyed at present by means of the stethoscope. This instrument was scarcely known in Ireland, and like most other novel inventions, was decried by some and ridiculed by others. Amongst the rest, I confess I had very little faith in the accuracy of prognostics made by means of this tube, and as I had seen some of them erroneous, my conviction of its imperfection, if not of its inutility, was rather strengthened. Of late, however, I have been induced to alter my opinion very considerably. The stethoscope is receiving a full, fair, and impartial trial in the Meath Hospital by Doctors Graves and William Stokes, and it is quite clear from the accuracy of their observations during the life-time of a patient, and the strict accordance of those with the pathological investigations after death, that many of the objectionable circumstances connected with its early use, arose rather from the inexperience of the practitioner than any decided imperfection in the instrument. Like most other improvements, it has probably been advocated too strongly on the one hand, and opposed on the other, on opinions too hastily formed; but it must be remarked that opposition has usually proceeded from those who understood least about the matter, whilst the more it has been cultivated the more warmly has it been supported. It is a mode of investigation that can only be learned by practice.—No description can convey the idea of one particular kind of wheeze or another, and as its use is not well accommodated to the bed-side of a private patient, it will be long before it comes into general use except in hospitals." 102.

Here then is a testimony from one who acknowledges himself to have been sceptical as to auscultation.

that inflammation interferes with the functions of the bronchial membrane, and that the blood will be imperfectly arterialized when such disease is present, it will be little consequence whether air be admitted or not—the brain will as surely be affected as if no artificial opening had even been practised, and all the relief the patient will experience, can amount to no more than a cessation of that *extreme muscular exertion* which is necessary to carry on respiration at all."

But surely Mr. Porter does not mean to say that the only inconvenience of an obstruction to the free entrance and exit of air to and from the lungs is merely an additional exertion of certain muscles. It is impossible to imagine any thing more torturous than what results from mechanical impediments in breathing; and were the operation of no other benefit than the relief of this part of the complaint for four hours before death, it would be well worth undergoing—at least we should prefer it to four hours of the agony in question. This temporary relief is thus exemplified:—

"I saw this admirably exemplified in the case of a little girl on whom bronchotomy was performed for the cure of croup: the disease had originally been confined to the larynx, but after the operation, the bronchial cells became affected, and the inflammation spread upwards nearly to the place in which the trachea had been opened. In this instance there was no deficiency of air: the aperture was much larger than the natural size of the rima glottidis, yet the patient had convulsions, exhibited every symptom of cerebral congestion, and finally died comatose." 49.

This comatose death is, of course, one of the easiest—and, therefore, on the principle of Euthanasia alone, we should be inclined to recommend the operation, when all other means failed. This, however, is not the opinion of the author, who presses into his reasoning certain *prudential* motives, which ought not often to interfere with the dictates of truth, science, and humanity, in surgical operations.

"In a disease that runs its course with such rapidity, it would be desirable to ascertain at what period the operation should be performed, and what are the symptoms that indicate its necessity. In the earlier stages, when the membrane is red and swollen, and no lymph as yet effused, there can be no object in making an incision which will be much more likely to aggravate the disease than to relieve it. When the adventitious membrane has been formed, there is some reason to think that in the great majority of cases, sufficient mischief has been already accomplished to render a recovery very problematic. The lungs have been already loaded with blood: perhaps effusion has been begun, and it may be, from the irritation

it has undergone that the mucous membrane of the bronchial cells has already taken on a disposition to inflammation. It may be that the brain has already become affected, for I have met with many instances in which the disease proceeded with such rapidity that no lymph has been effused, and yet the patients never during life showed any symptom that could mark a difference between the two cases. At the latter stages of croup, it would be absurd to think that an operation could possibly prove beneficial, unless it be supposed that a wound of the windpipe could remove cerebral congestion; and therefore whenever convulsions have occurred, or that the patient appears *comatose or sinking*, let no man undertake it as a last resource, for it is a resource that will avail him little, and after his patient's death he may esteem himself fortunate if a great part of the blame is not laid to the account of himself and his knife." 50.

No man, of course, would think of performing bronchotomy when the little patient was dying *comatose*. His sufferings are then over, or nearly so; but it is before this state of things has occurred—when the agony is great, and the sensorial functions are unaffected, that the free opening would certainly mitigate the suffering, and could not, we believe, increase the danger.

Mr. Porter observes, that it will be necessary to draw a distinction between the struggles of a patient endeavouring to free himself from some obstruction in the windpipe, and the convulsions just alluded to; for, in both cases the patient's countenance will become dark and purple, his eye suffused and staring, and his respiration heaving and laboured—and both these affections occur at a late period of the disease.

"If the inflammation is about to subside and to terminate in an extensive effusion of mucus, the patient's struggles to relieve himself from the oppression naturally created by the accumulation of fluid in the respiratory tube, must be not only distressing but injurious, and may prove fatal. In this case an operation which will afford a clear and easy passage for the fluid, will probably be followed by the happiest consequences: or if there was reason to believe, that on the total subsidence of the inflammation, the membranous lymph existed in the trachea purely in the condition of a foreign body, an opening which would afford means for its easy expulsion might also be judicious. But it is unfortunate that no symptoms exist, by which a practitioner can positively establish the propriety of his operation; there are in both these forms of disease the same cough—the same difficult respiration—the same struggles to inflate the lungs and to free the air passages from the impediments that are within them. To these sources of difficulty may be added, that any obstruction to the air cannot endure long without the lungs becoming loaded and oppressed, and therefore if the operation is not performed almost at the exact minute between the subsidence of the

inflammation and the commencement of the effusion, it will scarcely be successful. Thus it happens, that in the great majority of cases, when bronchotomy has been performed, the patient finds himself wonderfully relieved; great quantities of mucus are expelled by the wound; respiration is free, and a surprising degree of tranquillity seems to be suddenly obtained. But the calm is only deceitful. In the course of two or three days the patient begins to sink. He is unable to expectorate the mucus which now accumulates in greater abundance than before. He becomes heavy and languid—is with difficulty roused from this state of stupor, and generally within four or five days after the operation he dies comatose." 52.

In cases of purely spasmodic croup, where there is reason to believe that no organic disease whatever had existence in the wind-pipe, "the operation might not only be resorted to at the moment of attack, but probably offers the means of resuscitation, if very speedily adopted subsequently to apparent death." The following brief, but correct sketch of this mysterious and quickly fatal affection, may be deserving of extract.

"It is in general a diseased action consequent on irritation, and should be considered rather as a symptom than as a disease itself. It occurs in very young children,* and appears at the commencement of the period of dentition; sometimes earlier, and but very rarely after the child has reached its third year. The crowing noise which some infants make in respiration, and which nurses occasionally consider as a sign of thriving, is nothing more than the air rushing through the aperture of the glottis in a state of spasmodic constriction; and whenever this symptom appears, (however well the infant may seem in other respects,) it is always advisable to pay attention to it, and remove the source of intestinal irritation which will generally be discoverable. In some instances the constriction is both slight and momentary, and the spasm never produces either unpleasant or dangerous consequences: in others it is longer continued, and the infant works and struggles for breath, becomes purple in the face, and is apparently dying when the spasm begins to relax, and a long-drawn, crowing inspiration, sets all things to rights again, and after a little time the patient revives, and recovers well. These results of spasmodic constriction of the larynx are often mistaken for true cerebral convulsions, and form no inconsiderable proportion of the fits said to be occasioned by teething. In the fatal cases of spasmodic croup death is extremely sudden: the infant may be apparently in good health, and in a moment he makes a violent effort to inspire, which occasions something like a faint scream or cry, becomes black and swollen in the countenance, and

* "This is probably the disease which has been considered and described as cerebral croup, and on which Mr. Pretty has some excellent observations in a paper published in the Medical and Physical Journal, Jan. 1826, to which I beg to refer the reader."

dies before assistance can be procured. Indeed if a surgeon were standing by the patient's side at the moment, it is questionable how far his interference might prove serviceable." 54.

In this disease prevention is of more importance than the attempt at cure. Attention to the diet and secretions of children would almost invariably ward off such assaults; "but if the attack be severe, and the child is in imminent danger, will the surgeon be warranted in making a bold plunge with his knife into that portion of the windpipe between the thyroid and cricoid cartilage, in order to restore uninterrupted respiration?" Mr. Porter believes not. "But if the infant is, to all appearance, *dead*, and if the practitioner is called to him within any reasonable time, he should then, with the least possible delay, endeavour to inflate the lungs, and restore animation by whatever means shall appear to be the speediest, and of these perhaps the most preferable will be laryngotomy." Now we really think it is sacrificing rather too much to prudential motives, to allow an infant to expire of croup, and then begin the work of resuscitation, because no blame could be attached to the surgeon for an ineffectual operation on the dead body.* We do not indeed, wish to inspire sanguine hopes from the operation of bronchotomy in croup, because we are afraid that the affection of the mucous membrane will generally be too far advanced before an operation would be permitted; but if it be consistent with sound practical knowledge that an operation were desirable, we think it ought to be proposed at the proper time, independent of all considerations of a prudential or personal nature, on the part of the surgeon.

We shall notice a few of the cases which are introduced by our author in illustration of this part of the work.

Case. Mary Flaven, five years of age, was suddenly seized with shivering, nausea, hot skin, and other symptoms of fever; and in the course of the night, with symptoms of croup, in a most violent degree. Next morning our author saw her, in a state of excessive restlessness—her breathing loud, harsh, and shrill, "indicating that the rima glottidis was nearly closed"—pulse very rapid—much fever—dry cough. The child could not speak so as to be understood. The inspirations were performed with almost convulsive exertion. She was bled—had an emetic—took James's powder with calomel—warm baths, &c. But all was in vain; she died the ensuing night, 35 hours from the commencement of the attack.

On dissection the mucous membrane of the larynx was found red,

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very much swollen, and somewhat œdematous in appearance. The surface of the membrane, both in the larynx and trachea, was covered with a yellowish soft substance resembling paste, which could be easily scraped off, when the inflammation was found extending down into the air-cells. There was some effusion of serous fluid into the trachea. This was the only case Mr. Porter had ever met with, in which the tumefaction of the mucous membrane of the larynx appeared to be sufficiently considerable to create any serious impediment to the passage of the air. The brain was very vascular, but no other organ affected.

Case 2. Miss E——, aged 4½ years, after a slight febrile attack, of a few days standing, was seized with symptoms of croup—the cough being hard and dry—the fever considerable—the tongue foul —and pulse 140. There was constant restlessness. This child was bled with leeches to a great extent, without appearing much debilitated; while emetics were exhibited internally: but nothing seemed for a moment to arrest the progress of the disease, and she died in 34 hours from the commencement of the attack.

On dissection, the larynx was found perfectly sound, except that there was some frothy mucus entangled in the ventricles. There was no trace of any adventitious membrane. Immediately below the larynx, the trachea was inflamed, red, and pulpy, the intensity of colour increasing as it proceeded downwards, to the air-cells. These and the trachea were filled with a serous fluid, of a reddish brown colour. The lungs did not collapse when the thorax was opened.

After some more cases with the dissections are detailed, our author relates five cases of croup successfully treated. The methodus medendi consisted almost exclusively in administering the solution of emetic tartar, (generally about an eighth of a grain for a dose,) so as to keep up nausea short of vomiting. In some cases actual vomiting occurred. We observe that only one out of the five patients was bled.

Two cases are next detailed, in which bronchotomy was performed. Of these we shall take some notice.

Case 3. An interesting little girl, about five years old, was attacked, on the 10th May, with troublesome dry cough. On the 11th some imperfection of voice appeared, with spasmodic difficulty of breathing, and increase of the cough. At this time it was mistaken for hooping cough, by the first practitioner who was called in. On the 12th and 13th, the above-mentioned symptoms increased gradually, till the evening of the latter date, when an access of fever supervened, followed by dreadfully spasmodic difficulty of breathing, reducing the little patient to an alarming condition. On the 14th Mr. Hewson was called in, and determined on Bronchotomy, which was cheerfully submitted to by the little patient. When completed, "she appeared to be much relieved, and fell asleep, quietly breathing through a canula introduced into the trachea." On the 15th

she was improving rapidly—" she was recovering strength, and able to sit up in bed." She was teased with the mucus expectorated through the wound. Her pulse had fallen considerably in frequency —" she had some appetite, and ate a little light food with apparent relish." Her sleep was frequently disturbed, however, by the mucus accumulating. On the 16th " she appeared to be still improving, and hopes were entertained that she would ultimately recover." On the 17th, at 4, p. m. she took a turn for the worse. The mucus rapidly accumulated, and she died at 12 o'clock that night.

Dissection. The mucous membrane of the larynx seemed entirely altered in structure, being of a yellowish opaque colour, granulated, and having flocculi of lymph floating in the cavity of the organ. When these flocculi were detached, the membrane underneath appeared thickened and altered, but not red. There was no ulceration. The ventricles were obliterated, and the figure of the organ altogether spoiled. The boundary of the disease was abrupt, and confined to the larynx, terminating exactly at its inferior edge. The trachea was filled with mucus, frothy and reddish—and about half an inch below the situation of the wound, a blush of inflammation was perceptible, which increased in intensity as it descended lower in the tube. The mucous membrane of the bronchia was red, swelled, puffy, and lightly smeared over with a yellowish pasty substance.

This was a remarkable case—and certainly the relief afforded by the operation showed that the chance of life was increased, not diminished, by that process. We conceive that the means of reducing inflammatory action were not carried on with sufficient vigour after the operation, to give this little patient all the advantages which the operation itself was capable of affording. It is not to be understood that bronchotomy will subdue bronchitis—it only affords time for nature and art to cure the disease; and if people look tamely on, and even give a patient food during the temporary relief afforded by the operation, they cannot expect much success.

Case 4. Emily Toole, about 3½ years of age, was attacked with croup, on the 10th June, but did not come under our author's care till a day or two had elapsed. The disease was very acute in its symptoms, and promised to be rapid in its progress. " The child's lips were already livid and purple—cheeks swollen and very pale—eyes prominent, white, and bloodless." The veins of the neck were sometimes greatly dilated, and the muscles of respiration almost convulsed. The pulse was very small, and too rapid to be counted —the cough incessant—the breathing hard and sonorous. The operation of bronchotomy was resolved on, without much prospect of success. The hæmorrhage was considerable, and the difficulty of the operation great, from the struggles of the child. It was half an hour before the trachea could be incised, for fear of the blood flowing into it, and suffocating the patient. At length a small open-

ing was made, when the child expelled some bloody mucus. "The difficulty of breathing was removed, and it fell fast asleep in half an hour afterwards."

In the evening the child had rallied a good deal; "but it became apparent, that the operation had accomplished nothing." The cough was incessant, and the efforts to expectorate ineffectual. When mucus was brought up to the wound, it was sucked back by the next inspiration. She died in 12 hours after the operation.

On dissection, it was found that the larynx had been the seat of the disease, and was covered with a thick layer of adventitious membrane, which seemed nearly capable of blocking up the rima glottidis altogether. There was no trace of inflammatory action in the membrane around the incision. Just at the bifurcation of the trachea the membrane began to assume a red colour, which was continued downwards. The lungs seemed a little firmer than natural, and sections made into their substance gave issue to dark-coloured blood. There was considerable effusion into the bronchia and air-cells.

The state in which the child was, at the period of the operation, precluded much hope of success; but still we think the bronchotomy was justifiable.

II. LARYNGITIS ŒDEMATOSA.

Our readers will find, in the 3d volume of this Series, (July, 1825,) p. 205 to 210, an interesting paper on this subject from the pen of M. Bouillaud. It is but of late that the complaint has attracted the attention of pathologists, although, from the number of cases recently published, there can be no doubt that the disease is of very common occurrence. Passing over all speculation on the knowledge which the ancients are supposed to have had of laryngitis œdematosa, we may observe that the seat of this affection is more in the cellular tissue connecting the mucous membrane to the adjacent parts, than in the membrane itself, although the latter is often found to have been inflamed. The effect of inflammation in this sub-mucous tissue is an effusion of serous fluid within its cells, and a mechanical obstruction to the passage of air to the lungs through the rima glottidis. The danger of such a disease must therefore be in proportion to the quantity of effusion that takes place, and the rapidity with which it is formed, so that a patient may be quickly suffocated, or left to struggle three or four days with partially obstructed respiration, and finally congestion of the lungs and brain. The exciting causes appear in no wise to differ from those of inflammation in general—such as exposure to damp, to cold, to atmospheric transitions, &c. It is some-

times insidious, sometimes rapid in its approach. Our author knew two instances where young men had retired to bed at night, without complaining, and were found dead from this affection the next morning.

"The symptoms of acute cynanche laryngea might almost be enumerated from considering the morbid actions that have taken place, and the changes produced by them. They may, with reference to the treatment of the disease, advantageously admit of division into two classes: first those merely indicating the existence of some mechanical obstruction which prevents the lungs from receiving a sufficient supply of air; and secondly, those showing a state of congestion in the lungs, and perhaps in the brain.

"The former of these will present some variety, according as the disease may happen to be complicated with other inflammatory affections. In general its attack is sudden, but it may be otherwise; and if it be preceded or accompanied by cynanche tonsillaris, there will be previous shivering, nausea, headache, loss of appetite, heat and dryness of skin, with accelerated pulse, and other symptoms of inflammatory fever. Along with these, there will be a greater or less difficulty of deglutition, redness and swelling of the fauces, and enlargement of the tonsils. The occurrence of such symptoms as these may possibly lead the practitioner astray, if it should induce him to suppose that the difficulty of breathing arose from the inflammation of parts surrounding the larynx, and that the mischief was not situated within the organ itself. It is asserted on high authority,* that a combination of difficulty of deglutition with obstructed respiration, forms the essence of this disease; but it by no means follows that there should be any imperfection in the act of swallowing; for the larynx may be totally blocked up, so that scarcely a particle of air shall pass through it, and yet every part of the fauces be found after death to have been entirely free from disease.

"At first this affection makes its appearance with difficulty of breathing, and a sense of dryness or huskiness in the throat, which obliges the patient to cough frequently in order to get rid of what seems to be an extraneous source of irritation. This increases rapidly, and he is obliged often to draw a full inspiration in order to inflate the lungs, and in doing so there is a painful sensation of constriction about the windpipe. Soon the respiration becomes sonorous and laboured. There is a peculiar sound caused by the air forcing its way through the contracted aperture, which cannot be described, but which once heard, can never be mistaken. It is harsh, sibilous or whistling—accompanies each act of inspiration, and is less distinct, or perhaps wanting in expiration. The patient now becomes excessively anxious and uneasy: he has a strong disposition to slumber, and perhaps sleeps for a moment or two, but soon starts up in all the horrors of impending suffocation. His face is flushed; his eyes protruded, as if starting from their sockets;

* "Sir G. Blane. Med. Chir. Transactions, v. 6."

his lips swollen, but pale, and as if transparent; the larynx and trachea are moved quickly upwards and downwards in the neck, and all the muscles of respiration are brought into almost convulsive action, so that the chest heaves violently. At this time the patient cannot lie down, partly because the position is uneasy, and partly because he dreads falling asleep, and the horrible sensations with which he awakes. He will be generally found walking about, occasionally going to an open window with a view of inhaling purer air, and sometimes stopping to grasp a chair, or any other body which may serve to fix his arms, and thereby bring into action additional muscles to assist the process of respiration.

"In this stage the patient's voice is greatly impaired, but it is rather an inability to articulate at all than what is usually termed hoarseness. When asked as to the seat of his uneasiness, he points to the pomum adami. He is subject to dreadful spasmodic exacerbations, in which all the symptoms are aggravated, and the sweat pours off his forehead in abundance. The pulse at all times indicates the presence of irritation, being above 100, and occasionally 120, small, quick, and vibrating.

"It would be difficult to determine, on seeing a case of this description, whether the symptoms arose from the actual presence of inflammation in the mucous membrane of the larynx, and its becoming consequently thickened and swollen and pulpy, or whether they were occasioned by the effusion of serum within the submucous tissue. Yet a material difference of practice would depend on such discrimination, if it could be accomplished, for if the disease be purely inflammatory, unaccompanied by any mechanical obstruction, the great probability is, that it will be relieved, and ultimately removed by blood-letting and other measures of depletion, whilst, if the effusion has taken place, the object will no longer be to check inflammation, but to remove certain effects of it which have already been produced. Very many cases are related of acute cynanche laryngea, successfully treated by the usual means of combating inflammation; but it may reasonably be doubted whether these measures would be efficacious in producing an absorption of serous fluid once effused, although they might arrest the progress of the disease, and thus prevent its being thrown out at all. Perhaps cases of sporadic disease which have commenced in the palate, the tonsils or the fauces, are those most likely to be benefited by such treatment; but it must be remarked, on the other hand, that in many of the cases which recovered without operation, it is distinctly stated that no trace of inflammation could be discovered on examining the throat." 99.

Mr. P. thinks it probable that, in the majority of these cases, the morbid action is seated in the subjacent cellular tissue, and then the effusion takes place with such rapidity that the disease is hardly formed until the mechanical obstruction is produced. As the means of reducing inflammation, after the effusion, will be of no use, our only hope must rest in procuring for the patient another channel than the larynx for the purpose of respiration. There are many reasons why bronchotomy

should be promptly resorted to on such occasions. *First*, the hazard which is run by trying other means too long—*Secondly*, the operation allows the larynx to remain in a state of repose—*Thirdly*, the danger of the wound is nothing, and temporary relief is certain, allowing more time for the surgeon to make an accurate examination of the case.

General blood-letting should be carried, in acute laryngitis, to the extent of producing syncope or relief of the symptoms, and then the system should be kept under the nauseating influence of tartar-emetic. But, if serous effusion has taken place in the submucous tissue, depletion will do no good, and may do harm, as the obstructed respiration, in itself, occasions a severe depression of the vital energy, through the medium of the brain. How are we to know whether the difficulty of breathing be occasioned by acute inflammation or effusion? If, after an impression has been made on the system by a full bleeding, we find no alleviation of the symptoms, it may afford presumptive evidence that the obstruction is mechanical, and prove an additional reason for resorting to the operation. If this be delayed beyond a certain period, and the following symptoms take place, bronchotomy can only afford some procrastination of the patient's fate, and a less painful death.

"It is very possible that a patient may perish during the first stage of this disease, being strangled by a spasmodic action of the muscles of the larynx, and thus die *constante mente integrisque sensibus:* indeed the unwillingness a patient feels to make an attempt to swallow, which always brings on a spasm, or sometimes even to speak, shows that he is sensible of the danger attendant on spasm, quite independent of the fearful distress it occasions. But it is not thus that the disease terminates in general, for after the difficulty of breathing has continued for some time, the patient's countenance becomes swollen and of a livid paleness,—the eyes are pearly white and suffused, as if an exhalation had taken place from the conjunctiva, and dried upon the membrane;—the lips are purple,—the disposition to slumber increases, whilst the extreme anxiety of the patient to maintain respiration, and his efforts to carry it on, are increased. Every muscle that can be brought into action is forcibly employed, whilst the sound of the breathing is altered, and there is a kind of sob of distress accompanying each expiration. The sweat pours over the face and forehead, and perhaps from the entire body. Sometimes the patient becomes inconceivably restless: whilst again he may remain quiet, apparently under the influence of hopeless despondency. The pulse very generally increases in rapidity.

"After these symptoms have endured a few hours, the patient is observed to make less violent efforts to support respiration, and the intervals between each act are longer. The want of accordance between this function and circulation becomes more apparent; for the pulse is very small and increased in frequency, and often imme-

diately before death it is so rapid that its strokes cannot be counted. The breathing seems to be more a convulsive effort than a regular action, and is sometimes accompanied by stertor. The countenance becomes sunken, the eye loses its brilliancy still more, and the forehead is bedewed with a cold clammy sweat. The patient becomes insensible, and death soon closes the scene." 105.

Two cases are related in illustration of this part of the subject, of which the following is the substance.

Case 5. A gentleman residing 16 miles from Dublin, was attacked with what he considered to be common sore throat. He had been affected in the evening with shivering, head-ache, pain in the throat, and some difficulty of deglutition. He passed an uneasy night, and awoke from a short sleep in a paroxysm of suffocation. By the time the family apothecary arrived, the symptoms had taken an alarming character. The patient was bled, and took purgatives. A large blister was applied to the throat; but no relief followed. Mr. P. happening to be in the neighbourhood, was called in, and found the patient with pallid swollen countenance—glassy and protruded eyes—loud, harsh, and stridulous breathing, with violent efforts to carry on this function—pulse rapid, but not full—senses perfect. He died in an hour afterwards, or 21 hours from the first approach of the disease.

On dissection, the lining membrane of the larynx appeared slightly inflamed, of a bright pink colour, but not thickened in structure. The epiglottis was unaffected. The submucous tissue was œdematous, so that the edges were approximated, and the passage nearly closed. The cavity of the larynx contained a good deal of frothy mucus, and its surface was smeared over with a yellowish glutinous substance, resembling honey. Permission was not granted to examine the lungs.

The following interesting case, by Dr. Bliss, published in the first volume of the Transactions of the Physico-Medical Society of New York, is one exactly in point, and we shall here quote it.

"William Potter, aged 28 years, a seaman, was admitted into the N. Y. hospital on the 29th of December, 1814, with a fever of the remitting type. His skin was of a yellow colour, and bowels constipated. He had also slight catarrhal symptoms, with some soreness of the throat.

"He was convalescing from his fever, when, on the evening of the 13th of January, whilst the physician was visiting the ward, he complained of a sore throat, hoarseness, and cough. But these symptoms did not give rise to any particular alarm, on account of his previously having had an affection of the throat.

"The next morning, the house physician, Mr. Helme, being confined to his bed by illness, I was requested to see him.

"He complained of extreme difficulty of breathing, and had the

peculiar wheezing and cough of croup. His voice was remarkably shrill, and it was with great difficulty he could articulate. He referred to the larynx, as the seat of his distress. The fauces were slightly inflamed; but deglutition was performed with very little difficulty. The pulse was frequent and full, but not corded. The skin hot, and the tongue covered with a white fur. The face rather flushed.

"His symptoms appearing so exceedingly urgent, the jugular vein was opened, and about twenty ounces of blood drawn. An emetic was given, with a view of vomiting him; and although the patient took to the amount of three drachms of ipecacuanha, and twenty grains of emetic tartar, in divided doses; and notwithstanding mechanical irritation of the fauces was repeatedly employed, very little vomiting was excited. Little more was ejected, than the drinks which he had taken, to quicken the operation of the emetic medicine. The operation of vomiting, however, had the effect of producing a moist state of the skin, and of rendering respiration rather less difficult.

"After this, a piece of flannel, dipped in hot aqua ammoniæ, was applied to the anterior part of the neck, which soon caused vesication of the skin. The patient was also directed to inhale the vapour of hot vinegar and water.

"About 11 o'clock, the emetic medicine produced several very free evacuations from the bowels; the pulse, at this time, was very much reduced. The difficulty of breathing however, was not in the slightest degree diminished, but exceedingly distressing to witness. At this time a large epispastic was applied to the upper part of the chest.

"Between 12 and 1 o'clock, I was again summoned to the ward, and found the patient apparently in the agonies of death. The respiration horribly difficult; the countenance livid and shrunk; and the eyes as it were, starting from their sockets. This paroxysm increased, till the patient was seized with convulsions. The pulse ceased to beat, and respiration was momentarily suspended. From this state he recovered in a slight degree. At this time, the operation of tracheotomy was proposed; and the assent of Dr. Hamersley, the attending physician, having been obtained, I immediately performed it: being assisted by Mr. Inderwick, of the United States' navy.

"During the operation, the patient had another violent paroxysm of difficult respiration; and, to the by-standers, appeared to be dying. A gum elastic tube was introduced into the opening, and after the blood, which had escaped from the wound, had been thrown from the trachea, the patient breathed with tolerable ease.

"It became necessary several times in the course of the afternoon, to remove the tube, and introduce a fresh one; on account of its becoming obstructed by the mucus excreted from the trachea.

"A decoction of seneka was now directed for the patient: but every attempt at swallowing was followed by a fit of coughing, and his drinks appeared to find their way into the trachea. On examination of the throat, it appeared that the epiglottis was thrown

back towards the apex of the tongue, so that the larynx was not perfectly closed in the act of deglutition. The patient at times breathed with considerable ease, through the afternoon and evening; at other times, from the mucus becoming accumulated, the respiration was rendered more difficult, till relieved by a fit of coughing. In the forepart of the evening, a vapour bath was employed for his relief. But although the operation had evidently prolonged his existence, yet it appeared the disease was not subdued, and we were doomed to witness the inefficacy of our remedies. The patient expired about fifteen minutes after 10 o'clock in the evening.

"On dissection, it was observed, that beneath the muscles covering the larynx, there was a slight effusion of coagulable lymph. The upper part of the pharynx and the fauces exhibited traces of inflammation. The epiglottis gave evidence of having been highly inflamed. Beneath the membrane covering this part, on either side, there was a considerable effusion of serum, in distinct cavities or sacs.

"This effusion was so considerable, as to revert the epiglottis, and prevent its closing the glottis. This, as well as other parts of the larynx, was covered, on its internal surface, by a number of dark-coloured spots, which gave it a mottled appearance.

"The whole of the larynx and trachea showed a high degree of inflammation, on their internal surfaces. The mucous membrane, lining the larynx, was remarkably thickened, and beneath it there was a very considerable serous effusion. So considerable was this thickened state of the membrane and the effusion beneath, that the rima glottidis was almost completely closed.

"This circumstance, probably, gave rise to the symptoms of suffocation, which occurred previous to the operation having been performed. Besides these appearances there was a considerable quantity of tenacious mucus adhering to the inner surface of the windpipe throughout its course." 124.

The second case was not seen during life. The patient, a lad of 19 or 20, had been ill only one day, and was supposed to have died of poison. But, on examination, the rima glottidis was found completely closed by œdema of the sub-mucous tissue, the result of acute inflammation, for the epiglottis was scarlet, and swollen to twice its natural size.

The remaining half of the volume is occupied with chronic diseases of the larynx, including laryngeal phthisis—foreign bodies introduced into the air passage—wounds of the larynx and trachea—and observations on the operation of bronchotomy itself. These will form the subject of a separate article for our next number, in which we shall introduce some additional information on these important topics. In the mean time, we have exhibited sufficient specimens of the work to enable the public to judge of its nature and merits. To the junior practitioner, the work certainly affords a very useful manual on the class of diseases investigated—and to practitioners in general

it may be no unimportant object to have a distinct work on diseases, accidents, and operations, in such parts as the larynx and trachea.

VI.

Materia Indica; or some Account of those Articles which are employed by the Hindoos and other Eastern Nations, in their Medicine, Arts, and Agriculture; comprising also Formulæ, with Practical Observations, Names of Diseases in various Eastern Languages, and a copious List of Oriental Books immediately connected with General Science, &c. &c. By WHITELAW AINSLIE, M.D. M.R.A.S. late of the Medical Staff of Southern India. Two Volumes, Octavo, November, 1826.

OF all the works which have issued from the medical press of our Asiatic possessions, this is, unquestionably, the most interesting to the Indian practitioner, whether we regard the erudition and research of the author, or the novelty and value of the materials on which he has expended such prodigious labour. Before the publication of the first edition of this work, in 1813, the materia medica of Hindostan was more closely locked up from European eyes than the most mystic symbols of their mysterious religion. A host of Oriental writers, indeed, among whom the late Sir William Jones shone,

> ————Velut inter ignes
> Luna minores,————

have unveiled to us the greater part of the complicated Hindoo mythology, (for their system of religion scarcely deserves a better term,) while the manners, customs, castes, arts, agriculture, and domestic economy of the Asiatic nations have been freely portrayed by travellers, merchants, Jesuits, missionaries, and military residents, out of number. The diseases, too, by which the European adventurers are scourged in tropical climates, have been investigated with some success, and several scattered notices have been taken of the indigenous diseases of those remote climes; but still, we were almost entirely in the dark with respect to the native remedies employed by the Hindoo doctors, as well as the modes of employing them, and the effects thence resulting. The path which Dr. Ainslie pursued was no beaten track, "but winding, and often scarcely

to be traced"—overgrown with innumerable noisome as well as useless weeds, "yet occasionally adorned by flowers of rare beauty, and others possessing still more valuable qualities." If he has been so fortunate as to cull a few that may ultimately prove of real utility to mankind, he shall regret neither the time nor the labour that he has bestowed in the search—and may then too be excused for having dragged into public notice some of Nature's fairest offerings, with little to recommend them but--

"A brilliant aspect and an empty name."

The present may almost be considered a new work, so many and so great are the additions. The arrangement and even the title are changed. The work is divided into three distinct parts:—the *first* comprehending such of *our* drugs as are found in India and other Eastern countries, in which division is given some account of their different uses amongst the inhabitants of those regions:—the *second* part containing a description of those medicines which are used almost exclusively by the Hindoos—and the *third*, treating of such articles as are used by them in their arts and manufactures, together with those vegetables which are cultivated as food, embracing a very extensive catalogue of materia alimentaria.

The importance of these volumes to our countrymen in the East, professional, mercantile, and military, will be readily appreciated—and there are few Englishmen, we think, in those regions to whom the labours of our learned and indefatigable author can be indifferent. Under this conviction we shall dedicate a few pages to the announcement of a work which is rather out of the line of our immediate duty.

On the first part of Dr. Ainslie's work we can have little to say, as it treats of European medicines employed in the East. We shall pass over the whole of the first chapter, and come at once to the second, containing the metals and metallic substances. Even of these, we can advert to but a very few. From Dr. Ainslie's long experience in India, some importance must be attached to his sentiments respecting *mercury*, a medicine so much in use in that quarter of the world. We shall, therefore, stop a few moments to extract a few passages from this portion of the publication.

Cinnabar is found pretty plentifully in some parts of India, and forms a considerable article of commerce. The Hindoos are acquainted with the method of preparing factitious cinnabar, and consider it as *antispasmodic*, and useful in cutaneous complaints, and as a fumigatory in syphilitic ulcers of the nose, mouth, and throat. Calomel and blue-pill are the principal forms of mercury used in India. We shall here introduce a

quotation from Dr. Ainslie, on a subject which has lately excited much discussion in this country.

" The use of mercury in venereal complaints, has now been persevered in for upwards of three* hundred years ; and although there have of late been doubts entertained with regard to the absolute necessity of it, in such maladies ; nay, those who affirm that they can cure the constitutional disease by other and simpler means ; I own that I have not been made a convert to this new doctrine, nor shall give up the favourable opinion I have formed of it, after a nearly forty years' experience, notwithstanding all that has been brought forward against it. Much has been said of the *modus operandi* of mercury in syphilis ; but perhaps nothing more judicious has been given to the world on that subject, than the following notion of the celebrated Hunter ; that the stimulant operation of this metal, induces an action incompatible with the morbid action of the venereal virus, until the poison is either destroyed or evacuated from the body by the excretions ; but whatever may be the principle on which it operates, as Dr. Thomson observes, " its efficacy is certain when judiciously† and cautiously administered." It has appeared to me, that after long continued courses of mercury in India, (and they are often, I fear, too long,) blood drawn is not only more fluent, but much darker‡ coloured than it appears to be when taken from a person in health ; if this position is just, it becomes a question, whether or not this power of liquifying, or partially breaking down the blood, may not extend to the other fluids and secretions of the human body ; and so account for, from the use of this medicine, the removal of various glandular and other obstructions, to which the frame is subject, whether buboes, liver affections, tumours of the joints from rheumatism,§ &c. and of this we are certain, that in those painful and, I am sorry to say, frequent hepatic derangements, (to be met with in all climates,) and which are particularly distin-

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* "Berengarius Jacobus, a surgeon at Carpo, was the first who cured the venereal disease by means of mercurial ointment ; he died in 1527."

† " I know of no failure of a complete cure of syphilis, in India, when the medicine in question was timely resorted to and given with skill, and when the patient lived and managed himself as directed ; but I have known infinite mischief produced by delay, carelessness, inattention to diet during the course ; these are but too often followed by racking night-pains, nodes, ulcers, and all the rest of the horrid train of anomalous symptoms, which I need not enumerate here."

‡ " I perceive the same power of rendering the blood dark coloured was observed in mercury by Cirillo, a physician of Naples. See Alibert's ' Nouveaux Elémens de Thérapeutique,' vol. ii. p. 268."

§ " Of the wonderful efficacy of Mercury in acute rheumatism I have no longer any doubt ; it was but lately I saw a delicate female who had been brought to the verge of the grave by bleeding, purging, and the use of diaphoretics, in this complaint, without the smallest advantage, relieved from all her sufferings the moment her mouth became a little affected from the use of the blue pill cautiously administered."

guished by a dark-coloured, viscid and offensive smelling bile, and a long train of dyspeptic and nervous symptoms, no sooner has the mercury testified its alterative effect on the habit by bringing on a slight soreness of the mouth, than the bile, if examined, will be found to have assumed its proper healthy rhubarb-like appearance and consistence, with that peculiar smell it only has, when secreted by a liver no longer diseased; while the extra-ventricular digestion will also be observed to go on with its former vigour, and the stomach by sympathy partake of the happy amendment. How the more fluent and darker colour of the blood may be induced by the use of mercury, it is for chemistry to explain; the bright-red colour has been supposed by some to be owing to the iron* it contains; the red globules having been found to consist of a fibrous gluten, and that metal; now we know that mercury forms no amalgam with iron, though it does with gold, copper, zinc, bismuth, and lead, &c.†

"It is well known that the Eastern nations were the first who employed mercury‡ in the cure of some of their obstinate cutaneous and leprous affections; and it may be questioned, whether the natives of India were before the Arabians, or only second in order, in availing themselves of the virtues of that powerful mineral. We are told by Le Clerc, in his "Histoire de la Medecine," (pp. 771, 791,) that, according to Fallopius, the first physicians in Europe who made use of mercury in venereal cases, lived towards the end of the fifteenth century; and that they were induced to make trial of it from what they had read of its efficacy in scabies and leprous cases, in the writings of Rhazes,§ Avicenna,‖ and Mesue. The first lived about eight hundred years ago, the second died in 1036; and the last, we are told, published in the twelfth century; (though I perceive that Moore, in his History of the Small-pox, says, Mesue lived towards the end of the eighth¶ century, and beginning of the ninth;) and we know that Almenar, a Spaniard, published on it, in 1516.**

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* "The experiments of the celebrated Rhades show that from twenty-five pounds of blood from the human body, nearly two drachms of the oxide of iron were obtained. See Hooper's Medical Dictionary."

† "See Brande's Manual of Chemistry, vol. ii. p. 260."

‡ "See a valuable paper on the leprosy of the Hindoos, by H. H. Wilson, Esq. in the Transactions of the Medical and Physical Society of Calcutta, vol. i. p. 1."

§ "Argentum vivum cum extinguitur ardens est; quod scabiei auxilium affert." Vide Rhaz. de Re Med. lib, iii. cap. xxiv.

‖ "Argentum vivum extinctum adversus pediculos et lendes cum rosaceo oleo valet." Vide Avicen. Canon. Med. lib. ii. tract ii. p. 119.

¶ "But the fact is, there would appear to have been two individuals of the name of Mesue, probably of the same family. The one who has the greatest claim to our notice, is said to have flourished in the tenth century, to have professed the Christian religion, though a native of Bagdat, he practised at Cairo."

** "We learn from Morrison's excellent Chinese Dictionary, that it is not exactly known when Mercury was first given, internally in China; but that in A. D. 745, it was termed in that country *puh-sze-che-yo*, or elixir of life."

"Calomel is well known to be the most efficacious in liver complaints, in India, and especially in what is called acute hepatitis; but it is not to be prescribed until the more violent inflammatory symptoms have been mitigated by bleeding, blistering, purging, and low diet; it is apt occasionally to open the body too much; in such cases, the admixture of a very small quantity of camphor may be necessary, but certainly not more than a grain, or, at most, two grains in the course of the twenty four hours. Laudanum or opium in complaints of this nature is often deceitful. I have observed, that calomel is less likely to purge when prescribed in small divided doses during the day, than in a full one at bed time. I commonly gave a grain and a half, or at most two grains, three times in the day, rubbing in 3i. or 3ij. of mercurial ointment, once in the twenty-four hours, on any part of the body where the skin was soft and free from hair. As soon as the mouth gets properly touched* with the medicine, the pain and uneasiness in the side will be found to abate, so that its further continuance must be regulated with caution. In all cases where offending bile is to be worked off, or where it may be required to excite a new action, calomel is an excellent remedy, mixed, as occasion may require, with other medicines, aloes, jalap, rhubarb, colocynth, &c. It is no place here to enter into a minute investigation respecting the *causes* of diseases; and, no doubt, there has been great difference of opinion concerning those which occasion inflammation of the liver. This much may be safely said, that the stimulus of heat, (particularly a dry heat, such, for example, as characterizes the climate of the Coromandel coast, where liver affections are more common than in Bengal or in Malabar,) too full and improper diet, and imprudent potations, have a great share in bringing on the mischief; nor can it be questioned but that a viscid and badly prepared bile, producing obstruction and irritation, is a more immediate source of evil; and so constantly does neglected constipation precede an attack of hepatitis, that we cannot for a moment deny, but that it must powerfully contribute towards hurrying on the organic derangement by binding up what should daily be carried off. How calomel may be supposed to do good under such circumstances, I think may be conceived from what has been above stated regarding the *modus operandi* of mercury on the human frame; viz. by inducing a new action incompatible with the existing evil; but, perhaps, more directly by rendering that bile *more* fluent and natural, which had become viscid and depraved; so the most likely of all things to produce disease by obstruction, stimulated as the liver is at the same time by inordinate heat, and thereby secreting a larger quantity of bile than usual, but which is too thick to flow easily through the various ducts.

"With regard to the proximate causes of hepatitis much has been said by different authors. Winslow ascribed both the acute and chronic to an inflamed state of the ramifications of the vena portæ, which, in his opinion, constitute the seat of the disease. Saunders

* "And this is our surest pledge that mercury is to do good."

(and Dr. Good thinks with some plausibility) suspects the acute variety to be owing to an inflammatory state of the hepatic artery, and the chronic to a like state of the vena portæ, (Study of Medicine, vol. ii. p. 388.)

"When the membranes of the liver are attacked with inflammation, the pain and fever are infinitely more severe than when the substance of that organ is the seat of the disease. Indeed, I have known instances in which it appeared after death, that almost the whole of the parenchyma was converted into pus, though but little pain of any consequence had preceded. The pain stretching up to the top of the right shoulder more especially marks the acute disease; when the inflammation is on the convex surface of the liver. the patient lies with most ease on his right side; while, on the other hand, if the concave side is affected, he lies with greater comfort to himself on the left. The acute disease will, invariably, end in suppuration, by which part of the parenchyma of the organ will be destroyed if a stop is not put to the inflammation by bleeding, blistering, and purging, and a subsequent use of mercury. A tumour forming near the edge of the liver, or towards the concave surface, points externally, and can easily be opened, and the patient by this means saved. If the abscess forms on the convex surface, it will point towards the cavity of the thorax, frequently corroding through the diaphragm. I have known several cases in which the inferior lobe of the lungs having contracted an adhesion with those parts of the diaphragm connected with the abscess, the matter was discharged by the bronchiæ; but it more usually happens that the pus is diffused into the cavity of the thorax, and so forms a kind of purulent empyema; when the tumour forms adhesions with the stomach, or colon, the matter is consequently poured into them, and is either vomited up or passed by stool.

"There is a variety of hepatic derangement which is extremely insidious, and is either a sequel of the acute disease, unskilfully treated, or a consequence of general torpor and languid circulation in the organ in question; in the latter instance frequently attacking delicate women of sedentary habits. It is usually accompanied with one or more of the following derangements: obstructions and slight indurations of the liver itself, or in some of the ducts; chronic dysentery; partial feverish symptoms; dyspepsia; great irregularity of the bowels, from vitiated or scantily prepared bile; dejection of spirits; mental irritability; and, if the sufferer be a female, irregularity of the menstrual discharge. This malady requires much nicety in the treatment; mercury must be used with infinite caution, cool air sought, and whatever is likely to invigorate the frame without over stimulating: in such affections calomel, by its carthartic quality, is not so much to be trusted to as the blue pill, an excellent addition to which is ipecacuanha; two or three grains of the blue pill mass, with two grains of ipecacuanha, made into two pills, may be taken in the course of the twenty-four hours." 549.

Dr. Ainslie gives his testimony to the efficacy of mercury in dysentery, and also in those forms of dyspepsia and hypochon-

driasis which are accompanied, or rather produced by disordered secretion in the liver. The diseases in which mercury has appeared to do harm, in India, are those termed nervous, "whose causes are to be traced rather to the brain than the liver." Where matter is forming or formed, in any part of the body, our author considers mercury injurious—indeed he avers that this medicine cannot be made to affect the mouth after suppuration has taken place in the liver. It certainly is extremely difficult to induce ptyalism under such circumstances, but not, we believe, impossible in all cases. In the bilious remittent fevers of hot climates, our author testifies to the utility of mercury—but if, from mismanagement, these fevers assume the typhoid character, then we are not to expect the same effects from this mineral.

Dr. Ainslie next takes up the subject of the *doses* in which calomel ought to be prescribed in diseases of hot climates:—but here our author leaves the safe track of observation, and *assumes* consequences without any previous data. It is evident, from the tenor of Dr. A's remarks that, in his time, or at all events, in his practice, mercury was only given in small doses in Indian diseases. Since that period, a bolder track has been pursued by some Indian practitioners, and this medicine has been given to the amount of 20 grains for a dose in certain diseases of dangerous tendency. Dr. A., without experience in this practice, condemns it unconditionally. As his reasonings are quite unsupported by facts—and, indeed, are no more than gratuitous assumptions, we do not deem it necessary to give them any serious refutation.*

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* We would beg to draw Dr. Ainslie's attention to the following extracts from a very able paper on fever by Dr. Merrill, in the North American Medical and Surgical Journal, for October, 1826.

"The medical profession has been slow to adopt the plan of administering calomel, which seems so clearly pointed out to them both by reason and experience; and it is only since the masterly works of Dr. James Johnson have been extensively circulated, in America, that the practice of using this medicine in *large doses* has generally obtained. Like many other innovations in medicine, however, this has usually been adopted under such restrictions and modifications, as have rendered it productive of very little advantage, in the management of our most fatal diseases. Physicians, although commonly enthusiastic in their reliance upon newly discovered remedies and principles in medicine, find it exceedingly difficult to divest themselves entirely of long received and established theories. Pride, prejudice, and the authority of books, all combine to produce this effect; and it is a natural consequence, that, however useful or important the innovation may be, when put in common practice, it becomes so amalgamated with preconceived notions, as to impair or wholly destroy its usefulness, and its reputation is lost. This has been the case to a considerable extent with

In the third chapter of the first part, however, Dr. A. has gone again into the subject, in the course of some strictures on Mr. Annesley's late work on Indian diseases; and as he has here stated some practical observations that appear to us extremely well founded, and directly at variance with the opinions so confidently broached by Mr. Annesley in the said work, we shall occupy another page or two with the subject, before we dismiss it.

Our readers will remember that in the 8th No. of this Review, for April, 1826, we gave some account of Mr. Annesley's peculiar opinions respecting the effects of mercury in Indian diseases. This gentleman confidently asserts that the moment the mercury produces an effect on the gums, all its salutary operations are reversed—the energies and "vital resistance" of the system impaired—and, in fact, the hepatitis or dysentery increased instead of being diminished. Let us hear what Dr. Ainslie has to say upon the subject.

"With regard to the MODUS OPERANDI of mercury, I have already said much under the article Mercury, at p. 540; so shall here briefly observe, that till such time as a certain degree of soreness of the mouth takes place, I have seldom seen any very lasting advantage derived from its use, whether in syphilis, acute rheumatism, remittent fever, hepatitis,* or dysentery; on the contrary, I have but too often found symptoms rendered worse; but the very day, nay, I will go farther, the very hour when the mouth becomes affected, I have invariably remarked, that the disease assumes a more favourable aspect; and this peculiarity is so forcibly impressed on my mind,

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the change of practice in regard to the use of calomel. For while it is acknowledged, that the increased magnitude of the dose is an important improvement in the treatment of many diseases, still it is contended that the usual addition of *opium* must be as necessary as before, and indeed more so, to prevent an immediately cathartic operation—the identical effect required."

"Calomel, when given alone, I have always found to produce the best effects in scruple doses. A smaller quantity than this operates more frequently, producing greater irritation of the stomach and bowels, and causing frequent watery dejections, which rapidly debilitate the patient. In a larger dose, (than 20 grs.) although it does not always create any symptoms immediately unfavourable, yet no additional benefit is observed from it, and it sometimes becomes a source of much irritation, operates too frequently, and produces too great a degree of prostration. While the medium dose of twenty grains rerely fails to quiet the irritability of the stomach and bowels, and carry off large quantities of feculent bilious matter, without griping, tenesmus, prostration, or any other untoward symptoms. This dose may be given more or less frequently, as the nature and violence of the disease may appear to require." 231.

* "See Dr James Johnson's valuable Medico-Chirurgical Review for April 1826, p. 336."

that I should almost be inclined to look upon a slight degree of ptyalism, under the circumstances we alluded to, as a friendly notice from Dame Nature herself, that we had gained the wished-for goal. I shall ever remember one very marked instance, in the case of a poor fellow, a private in his Majesty's 74th regiment, who was in so miserable a state from dysentery, that I expected every hour to be his last; I had quitted him late the preceding evening, when his motions were so frequent, and tenesmus so distressing, that he required the almost constant use of the bed-pan; but what was my surprise in the morning, to find him sitting up in bed; and on being asked how many motions he had during the night, to hear him reply, 'Oh! none since midnight; but I have got a much worse complaint, so sore a mouth, that I can scarcely speak:' he had been for two days rubbing in ʒij. of strong mercurial ointment, morning and evening, and which fortunately had the effect I so much desired, just in time to save him; the medicine had exerted its *alterative* powers; a transfer of humours had been brought about to a distant part, and the bowels had in consequence been relieved by the change!

"To conclude: when I have spoken of mercury, I meant mercury in all or any of the forms in which it is commonly administered. Calomel, by being a valuable purge, is; no doubt, peculiarly useful in many cases; and, by its at the same time stimulating the liver and biliary ducts, an increased secretion of bile must naturally ensue from its being employed; but I humbly conceive, whatever may have been, certainly very ably, said by Mr. Annesley* respecting the mechanical and chemical operation of calomel, that the happiest influence of that preparation must be by its effect on the general habit *simply as mercury*; thereby changing for a time the nature of many of the secretions, rendering them evidently more fluent, and, consequently, removing organic congestion, dark viscid bile, &c. And, perhaps, the best of all proofs, in support of what I have here with much diffidence advanced, is our contemplating the extraordinary relief often given in cases of hepatitis, syphilis, acute rheumatism, and, most of all, in dysentery, *when no calomel had been given at all*, but the mercury rubbed in, in the form of an unguent." 651.

With the foregoing extract, which we recommend to the notice of Mr. Annesley, we close the first volume of the work under review.

The second volume opens with some preliminary remarks on the medical writings of the Hindoos. Dr. A. considers it a misfortune that the arts and sciences should ever have been mixed up with the sacred writings of these ancient people. This connexion has been a bar to all improvement. The *Ayur Veda*, or medical writings of antiquity, are considered to be

"* See his excellent observations on the use and abuse of calomel, in the first volume (p. 211.) of the Transactions of the Medical Society of Calcutta."

a portion of the fourth Veda, and the work of Brahma himself. This oriental deity instructed a brace of mortals (the sons of the sun) in the art and mystery of physic, and these descendents of Apollow ere thenceforth permitted to attend on the gods, when they happened to want a little medicine after a carousal on High Olympus. The *Ayur Veda* originally consisted of one hundred sections, and each section of one thousand stanzas. It was adapted to the limited faculties of man, and consisted of eight divisions:—the first gave instructions for extracting foreign substances, which chance or warfare might have forced into the human body—the second contained ophthalmic and aural surgery (showing that the oculists and aurists of our days have greater claims to antiquity than they supposed)—the third was general medicine (the business of the general practitioner of our times)—the fourth was the treatment of mental derangement (so that the ancient Hindoos had *mad doctors* as well as the modern Europeans)—the fifth division embraced puerperal and infantile diseases (the Hindoos had their Clarkes, their Merrimans, their Goochs, their Granvilles, their Stones, &c. &c. &c. as well as we have)—the sixth division treated of toxicology (the ancient Orfilas, Magendies, &c.)—seventh division, Chemistry (the Davys, Brandes, &c. of olden time) but the eighth division is now taken entirely out of the hands of the faculty—the method of *increasing* the population! It is true that many medical writers have generously instructed the world in the mysteries of HYGEIA; but still there seems to be a prevalent idea that the doctor's business is more connected with the decrease than the augmentation of the population.

Both medicine and surgery are now at a very low ebb in India. Dissection is contrary to the tenets of Brahma—and the same doctrine, we are sorry to say, is rapidly spreading among the Brahmins of this country, where anatomy is looked on with horror by the *great unpaid*, in particular. After stating this much respecting their anatomy, it is not of any use to dilate on the surgical acquirements of the Hindoos. The three following extracts from one of their ancient medical books may be considered as curiosities, and containing much truth mixed up with quaint error and superstition.

"'*Signs of a bilious and irritable habit.* A person of what is called a bilious habit, generally becomes grey very early in life; he is easily made to perspire; his eyes are often inflamed, while his body is pale; he is impatient, perverse, opiniative, and consequential; and for the most part very amorous; the conversation of such an individual is unguarded; he is addicted to falsehood; fond of ab-

struse studies, yet is he more partial still to the praises that are bestowed on himself.' "

" ' *Causes of fever.* An exposure to the heat of the sun, at an early hour of the morning, while fasting; eating voraciously any food of a very hot nature, when the body has been previously weakened by extreme hunger or fatigue; drinking stagnated water, into which withered leaves have fallen; taking a full meal without appetite; unseasonable weather; sudden vicissitudes of temperature; wooded, ill-ventilated valleys; neglected adoration of Crishna; air we have not been accustomed to, whether that of the plains or mountains; the malign influence of an evil spirit or *dewta;* checked perspiration; fear; grief; sleepless nights; long-continued constipation; *in a word, whatever exposes our mortal frame to deviations from its natural and accustomed movements! or clogs nature so much, that it requires great agitation, and consequent heat to bring the body back to sound health.*"

" *What constitutes a good physician.* The sages of antiquity (*maharshies*) have thus handed down to us the qualities which constitute a good phisician: he must be a person of strict veracity, and of the greatest sobriety and decorum, holding sexual intercourse with no woman, except his own wife; he ought to be thoroughly skilled in all the commentaries on the *ayurveda*, and be otherwise a man of sense and benevolence; his heart must be charitable; his temper calm; and his constant study how to do good. Such an individual is properly called a good physician, and such a physician ought still daily to improve his mind by an attentive perusal of scientific books (vághádum.)' " xxx.

With this short and imperfect notice of a work which is no more susceptible of analysis than a dictionary, we recommend it to the select library of every European who visits our oriental dominions with the view of residing there for any time.

VII.

Manual of Pathology; containing the Symptoms, Diagnosis, and Morbid Characters of Diseases: together with an Exposition of the different Methods of Examination, applicable to Affections of the Head, Chest, and Abdomen. By L. MARTINET, D. M. P. Resident Physician of the Hôtel Dieu. Translated, with Notes and Additions, by JONES QUAIN, A. B. Demonstrator of Anatomy at the Medical School, Aldersgate Street. Duodecimo, p. 310. Anderson, October, 1826.

WE need not say that the knowledge of anatomy is necessary for every practitioner; and that the SURGEON ought to have

a very minute acquaintance with the human structure, before he dares to operate or undertake the cure of surgical diseases. The physician should have a very clear knowledge of all parts of the body, and more especially of all the internal viscera, in order to be able to ascertain the seats and symptoms of diseases —and the general practitioner, uniting in his own person, the character of both physician and surgeon, should surely be well versed in the structure of that body on which he is operating medicinally and chirurgically from morning till night—and sometimes from night till morning. All this is granted on every side. But the student thinks if he can demonstrate and enumerate every artery, nerve, muscle, and viscus in the human frame, he is a very clever fellow, and prepared for all contingences; yet, were it not that morbid structure cannot be learnt without a knowledge of sound structure, we would be almost inclined to say that the *former* is the more important and useful study, at least for the physician and the general practitioner. How frequently do we see the most interesting specimens of pathology (meaning the effects of disorders, or morbid alterations) passed over as either misunderstood, or misconstrued by the practitioner who examines the body of a patient! How many false conclusions are drawn over the dead body, for want of a knowledge of morbid anatomy! The knowledge of simple anatomy, without the knowledge of morbid structure, is like the knowledge of physiology, or the laws of health, without any study of diseases. What sort of a practitioner would the most eminent physiologist make, who never attended to the effects of disease in modifying or reversing the laws of healthy function? Yet in such predicament is the student who goes away from his lectures, and classes without an acquaintance with the appearances presented in the dead body after diseases.

Nor will a bare catalogue of the morbid appearances presented in the dead body, on dissection, be of much use to the student, unless he be acquainted with the previous history of the case, and is able to connect cause and effect together. In this respect the original work of Dr. Baillie was remarkably defective. It is evident that his Morbid Anatomy was nothing more than the sepulchretum of the anatomical theatre in Wind-mill-street, and that he knew nothing of the histories of those diseases which had wrought the changes he so faithfully described. The *symptoms* which he *afterwards* appended, were, unquestionably *afterwards observed*, and are rather the symptoms of diseases in general than those which certainly appeared where the disorganizations enumerated were going on.

We are the more inclined to hazard this remark, because the symptoms during life, and the morbid phenomena in the dead body were but seldom connected at the time Dr. Baillie wrote, either in this country or on the continent—and still more rarely in the high practice of Dr. Baillie, than in the humble spheres of life. How far Dr. Baillie might have availed himself of the facilities afforded by St. George's Hospital, in perfecting his work, we have no means of knowing; but one thing is certain, that the symptoms were not drawn from the cases which afforded the materials of the plates or letter-press of his great work.

Independent of all these considerations, the immense progress which has been made in pathology during the last 20 years, rendered a new work on this important branch absolutely necessary; and, as it is universally allowed that the French have made greater advances in this department than ourselves—partly from greater opportunities and facilities in their hospitals—and partly, we are sorry to observe, from their greater zeal, Mr. Quain has done a service to his countrymen in translating the Manual of Pathology drawn up by Dr. Martinet—the best, and indeed the only work which is fit for the dissecting room in this country. We have no hesitation in asserting, that this manual is equally as necessary as any of those manuals of anatomy which the student employs in his anatomical pursuits, and far more beneficial afterwards, in private practice, when he has opportunities of comparing symptoms with dissections. On this account, the physician, surgeon, and general practitioner should make the work a book of constant reference whenever they proceed to a post mortem examination. It is only necessary, after what we have said, to give a single specimen of the publication,, and then we shall leave our brethren to decide for themselves.

ENCEPHALITIS.

"413. Inflammation of the brain may occur at any period of life from infancy to old age. There are usually some premonitory symptoms, such as a sense of weight in the head, of tinglings in the ears, deception of vision, irritability of the retina, numbness of one side of the body, pain or prickling of the limbs; when suddenly there supervenes a state of contraction or convulsion, continued or intermittent, of the muscles of one side of the body, or only of one of its regions. If the intellectual faculties be not altogether destroyed, the patient complains of headache usually referred to the side opposite to that which is the seat of the contractions; there is no delirium, the understanding is not deranged, it is merely weak-

ened. Sometimes the contracted limbs are painful, particularly when they are flexed, and an effort is made to extend them; the pupil of the affected side is in some instances contracted, and the eye closed by the contraction of the orbicularis muslce; the commissure of the lips is drawn outwards, even when the mouth is not moved; but when any voluntary motions are made, the commissure of the opposite side experiences a deviation; the muscles of the neck are in a state of rigidity, and draw the head towards the affected side. Still these various effects of irritation diminish gradually in intensity, and are succeeded by symptoms of collapse; the muscles fall into a state of paralysis with flaccidity; the eye remains closed, but it is by relaxation; the commissure of the lips hitherto contracted becomes pendent; the head and mouth are drawn in the direction *opposite* to that to which they had previously inclined; that is to say, to the sound side; the pupil is dilated, the sensibility of the affected side totally lost, and the understanding completely destroyed. We may here remark, that in order to trace these different effects of the disease, we must observe the patient from the first invasion of the attack to its final termination.

"414. In some cases we find that a rigid state of the muscles supervenes after a sudden paralysis with flaccidity; this is caused by the apoplexy being followed by encephalitis; the walls of the cavity, in which the effusion had taken place, being then seized with inflammation.

"415. If convulsions attack the side that remained unaffected, and if they be not followed by paralysis, they are caused by the occurrence of inflammation of the arachnoid membrane. If, however, a paralysis succeeds, it arises from a new inflammation attacking the opposite side.

"416. And finally, when encephalatis succeeds to arachnitis, particularly of the base of the brain, as occurs usually in children, one of the sides affected by convulsions becomes paralysed.

"417. Encephalitis presents several groups of symptoms, each indicating a lesion of a particular part of the brain. Affections of the upper extremity seem referable to lesions of the posterior fibres of the optic thalamus of the opposite side; those of the lower extremity to alterations of the anterior half of the corpus striatum.

"418. Paralysis of both sides of the body at the same time depends on an alteration of the central part of the pons Varolii.

"419. When there is no paralysis or muscular rigidity at either side of the body, and when a comatose state occurs, and goes on progressively increasing, we may suspect inflammation of the corpus callosum, septum lucidum, or fornix.

"420 Loss of the power of utterance seems to depend on an alteration of the anterior lobules of the hemispheres.

"421. Strabismus, rotation of the eye, dilation, contraction, immobility, constant oscillation of the pupil at one side, indicate usually an alteration of the surface of the corpora quadrigemina of the opposite side.

"422. Lesions of the pituitary gland, of the infundibulum, and of the grey lamella in which it terminates, by causing compression

of the optic nerve at one side behind the point of decussation, may induce blindness of the opposite eye.

"423. As to alterations of the transparency of the membranes and humours of the eye, and to paralysis of the organs of sense at one side, they seem to depend either on a derangement of the ganglion of the fifth pair of nerves where it lies on the petrous portion of the temporal bone, or a lesion of the corresponding walls of the fourth ventricle.

"424. Finally, derangements of the circulation, respiration, and of the generative system, without paralysis of the limbs, indicate an alteration of one of the lobes of the cerebellum.

"425. *The diseases with which it may be confounded* are, hæmorrhage, or 'ramollissement' of the substance of the brain, nervous fever, some cases of arachnitis, especially when it is circumscribed, and local effusions.

"426. *Anatomical Characters.*—The inflamed part of the brain presents different appearances, according to the time that the disease has lasted. When it is only of some days duration, the white substance, and, still more perceptibly, the grey exhibits a rosy or slightly red colour, and in it we perceive several vascular filaments. The firmness of the affected part is considerably diminished, and when cut into, the surface of the incision presents (not a multitude of minute drops of blood re-appearing after being wiped away, as occurs in congestion, but) a multitude of small red points, which cannot be removed by ablution. We frequently have occasion to observe these appearances in the cortical substance of the convolutions after arachnitis or violent congestions of the pia mater. In a more advanced stage of encephalitis the brain is red, the vascular injection more strongly marked, and the 'ramollissements' very considerable. Finally, in some cases the blood becomes so intimately combined with the cerebral substance, that its colour approaches that of the lees of wine, being of a deep dusky red; there is no actual effusion of blood, except we consider as such some small dots about the size of a pin's head, which we occasionally find in some particular points; in such cases the brain is in a state of extreme 'ramollissement, or softening.'

"427. If it should happen that the inflammation proceeds to these two latter stages without causing death, then the part affected begins gradually to lose its softness, and ultimately becomes more dense than in the natural state; it retains for some time its red colour, but changes finally to a dusky yellow.

"428. The third stage of encephalitis is that of suppuration; the red colour gradually disappears, the blood is replaced by a seropurulent fluid, which is infiltered into the substance of the brain, combines with it, and gives to it, according to the extent of the admixture, a greyish dull white, or yellowish green colour. The pus accumulates in some spots to a greater or less extent; sometimes there are no more than one or two drops, but still they are easily recognized by their resemblance to the pus of ordinary phlegmonia; in other cases, however, it occupies the entire of the centre of one hemisphere where, extravasated, as it were, it forms cavities for itself, in which

we find mixed with it several fragments of cerebral substance; lastly, in some cases, we find several small cavities uniting together to form a large one.

"429. These cavities are sometimes found separated from the substance of the brain by a new membrane, formed of the remains of the cellular tissue and vessels, which had escaped the effects of the suppuration, and which, when compressed towards the circumference of the cavity, interlace mutually, become organized, gradually increase, and become changed into a membrane whose thickness and density are progressively augmented. The internal surface of these cysts becomes smooth; the pus which they contain assumes more and more the characters of pus formed in cellular tissue, by reason of the progressive destruction of the cerebral substance, and finally becomes white, yellowish, or greenish, and perfectly homogeneous. Sometimes when the abscess is seated near the convolutions, the pia mater and arachnoid becoming thickened, concur in the formation of its walls. The pus of abscesses in the brain rarely emits any odour, except such as occurs in consequence of caries of the bones of the head, particularly of the petrous portion of the temporal bone, in which cases it is always fetid, and the membranes are altered and perforated.

"430. The grey substance is the most usual seat of encephalitis; and the parts most commonly affected are the corpora striata, optic thalami, the convolutions, pons Varolii, and cerebellum," 142.

From this specimen, which has been taken at random, and which is really one of the least favourable, our readers will perceive that the work actually presents no bad system of symptomatology, in addition to the important department of pathology. The work is printed with all possible regard to convenience in size and economy, and is highly deserving of the patronage of the British public.

VIII.

Appendix to the Papers on the Nerves, republished from the Philosophical Transactions. By CHARLES BELL; containing Consultations and Cases illustrative of the Facts announced in those Papers, 8vo. pp. 140, with a Plate of the Respiratory Nerves. Longman and Co. 1827.

THE discoveries of Mr. Bell, in respect to the nervous system, are now universally known to the profession, and their application to practice has been often made of late, by others as well as by the ingenious author himself. The present little

volume is constituted chiefly by examples of this application of certain highly interesting views of the nervous system, (peculiar to Mr. Bell,) at the bed-side of sickness. Its contents will therefore be eagerly perused by the author's medical brethren, and will, we are sure, contribute to their improvement. With the hope of widening the circle of perusal, we shall here endeavour to condense into as small a space as possible, an analysis of some of the more important of these "CONSULTATIONS AND CASES."

Case 1. Paralysis about the face is always alarming to the patient, and very often to the practitioner, unless the latter be acquainted with the discoveries of Mr. Bell, when he will soon discriminate between partial paralysis and that dependent on affection of the encephalon. The following case was, and we believe is, under the care of Doctor Gregory. The patient was a sailor, 45 years of age, who had been out of health for five years previously. Three years ago he was seized with paralysis of the lower extremities, after a few days illness. He soon recovered and pursued his business. After the paraplegia he was subject to the ague for eighteen months. Had had an abscess in the right ear, which burst and discharged matter for a considerable time. In August, 1826, a substance started from his ear, while in the act of coughing, and three weeks afterwards was observed to have his face drawn to one side, and his medical man warned him that he was going to have another attack of paralysis, and advised him to be cupped, blistered, &c. These measures do not appear to have had any effect, and the following were the phenomena presented, when he came under Dr. Gregory.

"All the muscles of the right side of his face which are controlled by the influence of the portio dura, or respiratory nerve of the face, are completely paralysed. He cannot elevate his eyebrow nor frown; there is a line nearly in the centre of his forehead, dividing the bulging of the muscles on the left side from the smooth uncontracted state of those on the right side. He cannot close the eyelids of the right eye; they remain always open: when he makes the attempt to close them, we see the eyeball rolling upwards. The secretion of tears is very abundant, so as to render this eye more glistening than the other: he complains of the inconvenience produced by its continually weeping; he also attributes a dimness of vision in the right eye to this cause. From the nature of his occupations, he is constantly troubled by the dust getting into his eye; but he has acquired a readiness of pulling down the eyelid with his finger, to defend it. His daughter says, that when she has seen him asleep, only the white of his eye was visible.

"His right nostril is collapsed. The muscles of the cheek and mouth are relaxed, and dragged to the left side. When he speaks,

the cheek flaps like a blind before an open window, and if he attempt to utter a word with peculiar emphasis, the air escapes from the corner of his mouth, like the whiff of a person smoking. He sometimes experiences a difficulty of swallowing, at the moment when the morsel is thrown back into the fauces.

"The sensibility of the right side of his face is natural. When he clenches his jaws, the masseter muscles can be felt equally hard and contracted on both sides of his face. He can protrude his tongue, and twist it to either side. He is deaf in the right ear." 11.

The peculiarity of the foregoing case consists in the occurrence of paralysis twice in the same individual, though it is evident that they were of different kinds, and from different causes. The facial paralysis must be considered as arising from affection of the portio dura in its course through the temporal bone.

Case 2. Mr. Bell was consulted (by letter) respecting a man, 50 years of age, who, for 20 years, had been affected with an involuntary contraction of the muscles on one side of his face, drawing up the angle of the mouth, and giving to the palpebræ a winking motion, so remarkable as to be seen at a considerable distance. The man was determined to have some nerves cut to prevent such a disagreeable state. Except once, he never had any pain during these convulsive actions: but then it was so severe as to resemble tic douloureux. The consultant (a medical man) proposed a division of the nerves, if Mr. Bell approved of the operation. Another gentleman came to town to have the branches of the fifth pair, on one side of the face, divided, in order to balance the paralytic features. "A singular consequence would have resulted from such an operation. The patient would have been deprived of sensibility on one side of his face, and of motion on the other."

"If the subject of the present consultation had submitted to have the nerve cut, his eye would have remained open, for the *attollens palpebræ* being supplied by the third nerve, and the *orbicularis palpebrarum* by the seventh, the cutting of the latter would have paralysed the eyelids: they would have remained open, and the eye would have become inflamed, and probably opaque. There would have been greater deformity, and blindness to boot." 15.

Mr. Bell wrote, of course, to the medical consultant in Scotland, warning him of the effects of dividing the portio dura, which operation would only paralyse certain muscles, without affecting the sensibility of the face, which is dependent on the fifth pair of nerves. Mr. B. recommended medical rather than surgical treatment.

" ' You will find this twitching to depend a good deal on the state of the digestion. Anodyne liniments rubbed in the course of the nerve, and pressure to limit the motion of the parts spasmodically affected, I have found attended with advantage. The pressure, which restrains this spasmodic motion, tends to break that habit, on which, in a great measure, it at length depends, however originally produced: and indeed, it is this circumstance, the continuance of the symptoms for twenty years, which forbids me being sanguine in the expectation of your effecting a cure.' " 18.

Case 3. This was detailed by Dr. Fergusson, of Baker Street. The patient was a sailor, aged 35 years, who had been ill with scrofulous affections for three years. Two years previously to the date of statement, he became deaf of his left ear, and had subsequently a discharge from it. Abscesses afterwards formed in various parts of the body, and one betwixt the mastoid process and the angle of the jaw, on the left side. In a short time after the abscess, the left side of the face became paralytic, and the eyelids (of that side) stood open, nor could they be closed by any voluntary effort of the patient, except by aid of the hand. He could chew equally well on both sides, and the sensation of touch remained equally acute in all parts of the face. When he attempted to close his eyes, the left eye-ball was turned up.

It is evident that the portio dura was here involved in the seat of the abscess, and that it had partaken of the inflammation, thus causing the paralysis.

Case 4. The particulars of the following case were transmitted to our author by Mr. Jackson, of Sheffield. Mary Unwin, aged 22, in her second pregnancy, has complained, for some time, of spasms in the lower extremities, constipation of the bowels, and slight dulness over the eyes.

" ' On examining the countenance, a singular distortion of the features is most apparent. The mouth is drawn to the right side, and the nose evidently inclines in the same direction. She was asked to put the forehead in action, as in frowning, and then was presented the appearance of wrinkles across the right side of the forehead, whilst the opposite side was even and perfectly unmoved. In sleep, the right eyelids are closed, as usual, but the left eye remains uncovered. She appears to have no power over the muscles, whose office it is to move the eyelids of the left side.

" ' There is little (I think no) difference in the sensibility of the two sides of the face. There is occasionally a dimness of vision of the left side, owing probably to the circumstance of the globe of the eye not being lubricated with the tears, as is the case with the opposite one.

" 'The patient states that she experiences pain on the left side of her neck, and at the root of the ear of that side; but there is no swelling nor marked evidence of inflammation existing in these parts. On pressing on the branch of the *portio dura*, or, as you have termed it, the respiratory nerve of the face, especially in the situation of the parotid gland, no uneasiness is experienced. The iris moves in obedience to the stimuli of light, and the tongue possesses its natural movement. In fact, there is no paralysis in any part of the body, excepting in those parts specified above, and which are supplied with nervous influence by the *portio dura*.' " 29.

Mr. Jackson having taken the proper view of the case, confined the treatment to moderate evacuations, instead of resorting to excessive depletion, as would formerly have been done, when the brain would have been considered in danger.

Case 4. We give the particulars of this case, because the man is about the Middlesex Hospital, and may be seen at any time.

It was casually observed, when this man brought his wife to the hospital for a paralytic stroke, that the left side of his face was much distorted, with great wasting of the muscles.

" 'He was examined by Mr. Bell, before the pupils of the hospital, and it proved to be a case of paralysis of the portio dura. The two sides of his forehead presented a very striking contrast: the right side was furrowed with deep wrinkles, which were more strongly marked when he frowned: a large fold of the skin was prolonged down upon the same side of his nose, which marked the descending slip of the occipito frontalis muscle; the left side of his forehead was perfectly smooth, the skin appearing to be stretched tightly over the bone, and there was no motion of the integuments in the act of knitting or elevating his eyebrows. His eyelids were quite motionless. When he was desired to wink, this eye remained open, and the cornea was elevated so as to be quite hid under the upper eyelid. This eye appeared a little duller than the other, yet he says he never had any disease in it. He cannot see so clearly with it as with the other eye. The left nostril is collapsed, and has not that fulness which the right possesses. Some power of acting with his cheeks seems to remain, as in whistling there is a slight quivering observed. Although his lips are dragged to the right side, yet they do not appear to be totally deprived of muscular power: he can grasp pretty firmly the point of the little finger, when it is introduced into the left angle of his mouth. The muscles of the neck are perfect: the fibres of the platysma myoides start out when he puts it into action. The skin is naturally sensible. He states that he has had this affection since he was a child. He has had no deafness; nor any disease which he can remember to have preceded this distortion of his countenance.' " 50.

Passing over several cases, partly Mr. Bell's own, and partly taken from Descot's dissertation on local affections of nerves, we come to a train of cases, where the nerves of the trunk, neck, and throat, especially those belonging to the respiratory system, were affected. We shall glance at a few of them.

Case 5. An unmarried lady, nearly 70 years of age, had enjoyed uninterrupted good health up to the present illness, with the exception of occasional, and short attacks of gout in the feet and knees. A few months ago she had some difficulty in moving the tongue, and in expressing some particular words, which difficulty has increased, so that now she has lost her speech altogether, from inability to move her tongue. The organ looks soft and pulpy, but retains its sense of taste and of feeling. The deglutition is impaired, and she is occasionally distressed with a sense of suffocation, in attempting to swallow food. The features of the face are natural, and the skin sensible. The saliva occasionally flows from her mouth.

This was the case submitted to Mr. Bell, by Dr. Robinson, of Preston. This case is descriptive, Mr. B. observes, of a paralytic affection of the 9th nerve, a cerebral and motor nerve, and therefore more alarming, as proceeding from the brain, and threatening apoplexy. It is evident in this case that the fifth pair of nerves is unaffected, as the taste and feeling of the tongue remain entire. Mr. Bell recommended nauseating medicines —leeches under the mastoid process—a seaton across the neck —and any local appearance of gout to be encouraged.

We knew an officer, then about 40 years of age, who frequently lost completely the power of uttering a single word, for hours together, though every other faculty and function was in a state of integrity. The first attack came on while in the middle of his dinner, and alarmed him exceedingly. He retired immediately into another room, and sent for the writer of this article. He wrote down on a piece of paper that he was quite speechless. He had little or no command of motion in the tongue, and as he was of very plethoric habit, we certainly apprehended impending apoplexy. We bled him largely, but this made no difference in the paralysis. When his arm was tied up, he fainted, and, on recovering, turned sick, and vomited up some most intensely acid matters. The moment his stomach was cleared, the power of speech returned. After this, he had many attacks of a similar kind, and they always proved to be connected with acidity in the stomach, with which complaint he was more distressed than any individual we ever attended. He was obliged to be always taking magnesia or

alkalies. He retired from the service on account of his health, and he is now alive, after 18 years retirement. But we lately heard that he had an attack of apoplexy, last year, and is now completely hemiplegiac.

Case 6. A boy, 10 years of age, had been subject from childhood to a pain in his ear. This, about a year ago, became so intense in his left ear, that he had no rest, night or day. The pain extended to his head and face, affecting the forehead, and the sockets of the teeth. After this his left eye became affected, and he lost his sight. He recovered by large bleedings, leeches, and blisters. There has often been much discharge from the ear, attended with fever, great pain, and sometimes phrenzy. In one of these attacks, he had a strong convulsive fit, and on recovering sense, he was found to be speechless. He was admitted into the Middlesex on the 7th of October. About a week afterwards, he threw himself down in a violent passion, and from that moment he was entirely deaf. Since that period, his left arm has become useless. He can move his fingers, but not his arm. Part of the member is acutely painful when touched.

"'He is now brought under Mr. Bell's care, who has made a particular examination of his condition. The actions of respiration are perfect. When he smiles, there is no inequality in the action of the muscles of the face. He is reported to make noise enough in laughing. When cupped, he hollowed out, and they thought every moment he would speak, yet there was no articulate sound. The boy is acute, and understands every thing communicated to him by writing. When by this means he is asked to speak, and when the throat is grasped during the effort, there is not the slightest motion perceptible in the muscles of the tongue. Yet he can masticate and swallow with ease; he can nearly touch the point of his nose with his tongue; he can turn it down to the chin and sideways. When his surgeon's name is written, and he is asked to pronounce it, he remains fixed with his mouth open. When by signs he is told to close his lips in the manner necessary to pronounce the letters *b* and *p*, and when he is then asked to pronounce these letters, there seems an utter inability. The consent of action between the chest, larynx, and mouth, seems to be lost.'" 92.

The patient was repeatedly purged with calomel and jalap—and leeches behind the ears—fomentations and blisters to the sides of the head. His condition, as to health, and the power of the arm, was much bettered, but he continued mute and deaf, and afterwards left the hospital, towards the end of December. He was brought to Mr. Bell's house in the July following, when his mother informed Mr. Bell, that three months

previously he had suddenly recovered both speech and hearing, after a discharge of matter from his mouth, which appeared to come from his head. He had been nine months dumb. His sense of hearing was now morbidly acute.

"This case of Hill's is not demonstrative, for happily there was no dissection to ascertain the precise nature of the injury to the nerves; but it is illustrative. There appears to have been an abscess, originally produced by disease of the temporal bone, and affecting the nerves of the base of the brain, first affecting the fifth nerve, and then spreading its influence to the seventh and ninth. If the disease had produced its influence mechanically and by pressure, there would have been no obscurity, and one side only would have been affected; but I imagine the inflammation had disturbed the operations of the nerves, without altogether destroying their influence, deranging, for instance, the fine associations necessary to speech, without arresting the action of the muscles of the tongue. It is remarkable, that the bursting out of matter, probably from the Eustachian tube, had such an instantaneous and simultaneous effect in restoring both hearing and speech." 96.

Cases 7 *&* 8. Mr. Bell alludes to some curious cases of young females, affected with distressing symptoms about the throat, which are extremely puzzling. He was consulted in the case of a young lady, who had "a convulsive barking noise like a cough, excepting that the larynx was alone affected, and there was no conforming action in the pharynx, velum, and lips. She would sometimes cough naturally in the intervals of this noise; but this natural coughing did not interrupt the return of the unpleasant hard bark, at the rate of ten times in the minute. It ceased when she was asleep, but the moment she was awake, the family heard the noise, intolerable from repetition. It continued a month, and returned three successive winters." We recorded a remarkable case of this kind, some time ago, which was seen by many Physicians of this metropolis, one of whom bespoke a sight of the dissection, as he was confident there was fatal ulceration of the larynx! The young lady is now alive and well. Dr. Sims, Dr. Armstrong, Sir Astley Cooper, and many others, will remember this case.

In one instance of this kind, the spasm of the glottis was so continued and severe that the attendants called on Mr. Bell to perform laryngotomy!

"All the subjects of these odd cases, which we do not understand, get well. This is consolatory to a patient, certainly, but not very satisfactory to ourselves. Ought it not to be a question, what nervous affections are consequent on trivial irritation? Without entering on the question, whether deranged health be followed by the

imperfect and deranged action of the uterine system, or whether the latter be the primary disorder—*the ovaria are the source of irritation;* and the consequences are exhibited through the most susceptible system of the nerves, the respiratory system. Hence the disorder of stomach, the spasms, globus, the difficulty of deglutition, the aphonia: hence the affection of the countenance, the tears, the sobbing, and spasms of the eyes and face, and throat, and chest, and stomach." 99.

We are rather at a loss to know on what foundation Mr. Bell grounds the positive assertion, that "*the ovaria are the source of irritation*; in these cases. We have little doubt, indeed, that the uterine system is generally the seat of the original irritation; but why the ovaria should be selected as the exclusive seat, is not quite so apparent.

Case 9. Mr. Bell visited a lady who lay on an inclined plane, totally incapable of moving: yet her breathing was easy, and her countenance animated, although she could not speak. "Here was a case of the paraplegia of the older authors—a palsy affecting the whole body below the neck." As the patient lived and breathed, under these circumstances, it is clear that the respiratory muscles were not affected—and, consequently, that they are supplied with a distinct set of nerves.

Case 10. Anne Roper was admitted into the Middlesex, in June, 1825, for a strange spasmodic affection, which, before the discoveries of Mr. Bell—and, perhaps, even at the present moment, would puzzle a conjuror. It is necessary to say that her bowels were out of order, and her catamenia irregular.

"'The condition of this woman is very peculiar: inspiration is performed with a sudden spasmodic action, in her common breathing: she is also affected at intervals with more violent spasms, and respiration is then hurried. On the commencement of a paroxysm, she bends her body slightly forwards, and thus prepares herself for the attack: her nostrils are widely dilated, the angles of her mouth are dragged forcibly down-wards, there is a constriction of the throat, the shoulders and chest rise convulsively, as when a person has cold water poured upon the head; there is a deep and violent inspiration, attended with a sniffing of the nostrils, from the air being inhaled through them only, and not through the mouth. The fibres of the platysma myoides start into view, there is a quick rising and falling of the pomum Adami, the sterno-cleido-mastoideus, and trapezius on both sides, act powerfully in fixing the head and elevating the shoulders.

"'The spasmodic action of these muscles exists to a considerable degree constantly, yet it increases in paroxysms which last for a few minutes so severe that she is deprived of the power of

speech, and seems to be almost suffocated. These paroxysms recur at irregular intervals. It was observed by the attendants, that when she was excited by walking about the ward or by replying to our questions, they returned more frequently.

"'She could move her head with perfect freedom when we requested her, but still the spasmodic action continued. She also raised either shoulder, or twisted her face to one side, when she was desired. This woman continued under the care of the physician for about a month, and was discharged cured.'" 106.

No other explanation or history of this case is given, than that she was treated successfully by Dr. Southey. The means are not stated; but there can be no doubt that the indications of cure hinged on the improvement of the digestive and uterine functions.

Mr. Bell's little volume closes with some "additional observations to the cases of injury of the spine," of which we shall give the particulars of the principal case.

Case 11. James Palmer, aged 16, was admitted into the Middlesex on the 4th October, 1825, suffering, as was supposed, from a blow on the head. It turned out, however, that this injury was a mere slap of the hand on the top of the head, without any violence. The patient stated that, three weeks previously, he had caught a violent cold, with stiffness and swelling round the neck. When this subsided, there came on a swelling at the back of the neck, which continued to increase, until he felt a numbness in parts of his arms and fingers, and also in his leg. The use of the right arm and leg was at length lost; and he was then brought to the hospital exhibiting the following phenomena, viz.—a swelling round the spine, on the back of the neck, apparently a thickening of the ligaments and cellular membrane around the bones. This tumefaction is greatest on the right side—complains of no pain, and can bend his neck to a certain degree; but requires assistance to move either arm or leg of the right side; the left is less affected. 8*th Oct.* An issue was made on each side of the cervical spine, by incisions, which bled freely. Next visit he was better, and could move his arm and leg. This amelioration soon disappeared. Leeches were ordered, under the idea that the temporary relief had been owing to the loss of blood. 14*th.* He is worse—complains of more numbness, and can move neither leg nor arm—when he attempts to move his head, he has great pain, increased when the head is permitted to fall forward. Means were taken to give as much rest as possible to the inflamed vertebræ, and leeches, issues, purgatives, &c. were attended to. 18*th.* The boy breathes rather better, and has more power of motion in the left leg. Leeches, &c. continued. 19*th.* Not so well. Lies a little twisted, and breathes laboriously. 20*th.* Worse. 25*th.* Breathing difficult—complains of a sense of weight on the chest—voice more feeble. The sterno-cleido-mastoideus muscle appears in strong action—abdominal muscles totally inactive and loose. *Jan.*

7th. The extenuation of the abdominal muscles permits the peristaltic motion of the intestines to be seen through them. He is sensible of pressure on the stomach, but not so on the intestines. He can give no impulse to the expiration of air, but expires merely by the falling of the chest. In sleep his thighs are involuntarily drawn up, and he has no power of pushing them down.

September, 1st. No note has been taken of this lad's case for some months; but the improvement is remarkable. The motion of the right arm first returned, and then that of the left. He then began to move his legs, first the right and next the left. At last he managed to get out of bed, and crawl about the ward. He is now able to go on crutches. No other treatment was pursued than attention to the bowels, to prevent constipation; and keeping up active issues in the neck, with rest.

" This case of Palmer is very interesting, and abundantly confirms the result of the cases of fracture of the spine. By the progress of inflammation beginning in the vertebræ, and propagated to the spinal marrow, we see the function of the spinal marrow slowly debilitated, and at length the symptoms coming to resemble those produced by the crushing of the spinal marrow by the broken vertebræ. But here we can observe the gradual failure of strength, and the consequence of inactivity, in the wasting of the muscles. The most remarkable effect of this, was the possibility of seeing the intestines moving, and the relaxed abdominal muscles partially rising and falling according to the distention and contraction of the intestinal canal. This state of the abdomen permitted us to examine the stomach, and to ascertain that its sensibility was entire: and it is fair to conclude, through the influence of the par vagum. The branches of this nerve to the stomach, like its subdivisions to the larynx and pharynx, are in possession of two functions; the peculiar sensibility of the part is bestowed, and the arrangement of the muscles is formed through its influence. It must be remembered, however, that this double office is from its receiving additional branches from the spinal nerves just as it is emerging from the base of the skull. From the first instance given in this section, where a lady was insensible below the neck, it may be presumed that the influence of the lungs, and heart, and stomach, on the respiratory system of muscles, exciting to the act of breathing, was propagated through the par vagum.

" As the symmetrical system of nerves to the trunk became impaired, the muscles supplied with the accessory respiratory nerves became more excited and rose higher into action. At the same time, the voice became feeble. This is easily understood, for the strength of the voice results from the impetus with which the breath is expelled. In this case, the active muscular power of expelling the breath was lost, with the other voluntary powers of the trunk and extremities; and by this we see the importance to life of these accessory nerves of respiration, for they continuing to possess power over the diaphragm, serratus magnus anticus, trapezius, and sterno-cleido mastoideus, they supplied a force of inspiration sufficient to preserve

life, until amendment took place in the spinal marrow, and common spinal nerves. No one, I apprehend, will be bold enough to affirm, that if the muscles of the neck and trunk had been as entirely deprived of action as the abdominal muscles were in this case, the patient could have survived by the mere action of the diaphragm." 135.

A very good plate of the respiratory nerves and muscles accompanies the volume.

These cases and consultations of Mr. Bell will be read with considerable interest by the profession—not only by the inquisitive physiologist, but by the plodding practitioner. The only drawback upon the consultations, is one inseparable from such documents—namely, our ignorance, generally speaking, of the final issue of each case. Some of these deficiencies, we think, Mr. Bell might have supplied—and he certainly might have been more communicative, in several instances, respecting the treatment employed; as, for example, in the case of Anne Roper, under his care and that of Dr. Southey. Mr. Bell, however, was more intent on elucidating the physiology and pathology of the superadded system of nerves, than on any therapeutical measures employed in removing morbid affections. We are grateful for what he has laid before the public, and hope he will persevere, through good and evil report, in the path of professional reputation which he has so long trodden, with honour to himself, and advantage to the public. We shall here close this article with the concluding passage in Mr. Bell's volume.

"And now, in parting with my reader, I congratulate him that we have a profession that furnishes us continually with new objects of interest, and makes us independent of all encouragement, whether from men of science purely, or from that part of the public that follow science from fashion. They are occupied with matters which they conceive to be of superior consequence: we feel and know that we are engaged in pursuits, that are both higher as matters of science, and infinitely more important to humanity." 140.

IX.

Dissertation sur les Affections Locales des Nerfs, par PIERRE JULES DESCOT, *d'un Travail fait sur la Direction de M. Béclard, et enrichi de nombreuses Observations, fournies par M. M. Béclard, Dupuytren, Marjolin, Richerand, Roux, Moreau, Ribes, Richard, Bérard, Bogros, and Briquet.* Octavo. pp. xx. 336. A Paris, 1825.

PHYSICIANS see few diseases, indeed, in which the nervous system, including the brain, spinal marrow, the nerves and their ganglions, is not implicated in one degree or other: next to the sanguineous,* on which it is dependent for its existence and vitality, it requires much consideration in treating almost every affection of the animal economy. Important, however, as the subject is, we intend not at present to enlarge our article by introducing a sketch of the facts and philosophy on which this comprehensive statement is founded; or, as might be expected, by entering into the details of a neuropathic bibliography: such topics would undoubtedly lead to very interesting discussions; but we have chosen, for this time at least, to confine ourselves to a purely analytical exposition of that branch of the nervous pathology which it is the chief object of Dr. Descot's dissertation to explain. At once, therefore, we enter on our task, without farther remarks, either apologetic or preliminary.

Additionally to the usual pageantry of a book, a dedication, an "avertisement," and a preface, Dr. D. has premised a discourse intended to have been spoken by him over the remains of his patron and friend, Professor Béclard, on the day of that illustrious man's funeral. There can be no doubt of our author's having regarded his "Discours" as a master-piece of pathetic elocution: nevertheless, we acknowledge that it is not much to our taste, and we felt unable even to suppose what could have been the writer's inducement to give it a place in the same volume with this simple inscription—"PROFESSORI DESIDERATO, BECLARD, SILENTIUM VERBIS FECUNDIUS, P. J. DESCOT." With this hint in passing, we advance to the Dissertation itself; and, from the xv. chapters it comprehends, shall proceed to draw such facts and doctrines as may appear best adapted to promote the extension of medical knowledge and experience.

CHAP. I.—*Of the Nerves.* This, of course, is entirely anatomical,

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* Blood-vessels require an uninterrupted supply of the "nervous energy" for maintaining perfectly the discharge of their incessant functions; but there is no evidence in physiology from which we can *assert* that the nervous energy is in any form or degree imparted to the blood itself: this last is the communicative source, from being to being, of substance, vitality, and mind.

and describes the organization of the nerves themselves, their ganglions, anastomosings, blood vessels, neurilematous envelope, functions, and distribution. We do not deem it necessary to dwell on this section; but we must advert to this statement of Dr. Descot's, inasmuch as we regard it as being rather remarkable. "Nerves," he says, p. 11, "at their insertion into the cranial and spinal brains, are somewhat thickened and very soft; at their other extremity, *their size is much more considerable still and their softness very great:*" if there is no error of expression or description here, we would ask, —are the facts demonstrable to the observation of ordinary inquirers?

According to our author, each nervous fibre is formed of a white, pulpy substance, consisting, like the nervous structure in general, of an assemblage of microscopic globules, and a neurilematous envelope, which supports the medullary substance, and never "abandons" it but at the two extremities and in the ganglions. Blood-vessels, very large, relatively to the nervous fibres, are distributed to their envelope, and penetrate into their internal structure. Nerves possess an extreme tenacity, depending on their neurilema, which renders them exceedingly difficult to be ruptured. The medullary matter, of which they essentially consist, is immoveable in their centre, and we cannot suppose that it there experiences "*un mouvement de translation;*" partly on account of its consistence, or least its great viscidity; and partly because the neurilema is not a real canal, since the cellular texture which forms it dips into the pulpy substance of the nervous fibre. We resign the interpretation of these aphorisms to those of our readers who have experience in practical anatomy.

In a foot-note to p. 12, Dr. D. makes the announcement, that M. Bognor has recently submitted to the Academy of Sciences, a memoir on the structure of the nerves, in which he states, as the result of his experiments and researches,—*that the nerves have a central canal:* we agree with him in adding, that if this fact shall be well established, it will necessarily exert great influence on the physiology of the nervous system. He then goes, at some length, into a statement of the experiments made by Dr. Magendie on the roots of the spinal nerves, and this of course leads him to notice the claims of Mr. Charles Bell to the priority of discovery. Dr. M. he says, had just finished and published his experiments when he understood that Mr. Bell had, thirteen years before, divided the roots of the spinal nerves and discovered that this section did not prevent *motion;* and that this last anatomist had consigned this result to a printed, but unpublished tract, which was distributed among his friends. From a perusal of this tract, Dr. D. concludes that Mr. Bell, conducted by his ingenious ideas on the nervous system, had well nigh discovered the functions of the spinal roots: nevertheless, the fact, that the *anterior* are destined to *motion*, whilst the *posterior* belong particularly to *sensation*, appears to have escaped him: it is to the having established this fact, in a positive manner, that M. Magendie limits his pretensions. Dr. D. repeated these experiments on young dogs, and found them invariably to afford the same results.

The nerves, he also informs us, which traverse ganglions and those that terminate in viscera and the sides of vessels, do not transmit impressions, and the will does not direct the motions which they determine: it is only in strong affections of the mind and of these organs, that their functions produce sensations, and the motions occasioned by nerves are disturbed. It is, he thinks, to the intercommunications of nerves that sympathy ought in a great measure to be referred.

Dr. D. concludes his first chapter with stating that the diseases of the nervous system may be divided into those which, by affecting the brain and spinal marrow, introduce disorder, more or less extensive, into the functions of the whole frame, and into those which, by implicating a single nerve, do not necessarily disturb the rest of the system: he has selected the last class as the subject of his dissertation, to the next section of which we now accompany him.

CHAP. II.—*Of Wounds of the Nerves.* Wounds of nerves, Dr. D. says, are confounded with all lesions of this kind, and occasion the concomitant pain; but, he adds, we should regard those only as wounds of nerves, which affect a branch or appreciable fibre, and not the slender extremities of these organs. Such injuries, whatever be their seat or degree, are immediately followed by intense pain, whether the nerve be perfectly or partially divided: they are not necessarily accompanied by palsy of the parts to which the nerve is distributed; but when palsy does supervene, it may be temporary or permanent. According to circumstances, the wounded parts sustain *adhesive* inflammation, ending in "primitive re-union:" occasionally the *suppurative* succeeds, and sometimes the *ulcerative*, which, becoming chronic, leads to various alterations of texture: not seldom, these diversities of inflammation appear to depend on the kind of traumatic lesion; and often on accidental causes, as motion of the injured part, and the influences of the atmosphere. The constitution of the patient, and his previous state of health or disease, always modify the effects of wounds of nerves as much, or even more, than those of any other lesion. These remarks lead him to examine successively the different kinds of the wounds of nerves, and to—

CHAP. III.—*Puncture of Nerves.* On the instant of a nerve's being punctured or partially divided, there is always a very acute pain in the parts to which the nerve and its branches are distributed; but the consequences of the wound are exceedingly variable. Most frequently, when the person is healthy, keeps himself tranquil, and avoids every other cause of disease, the wound heals readily and without accident. Dr. D. confirms this statement by two experiments, which, as they are concise, we shall transcribe.

Exp. 1*st.* Dr. Descot punctured the sciatic nerve of an active young pointer dog, after having exposed and separated it from the surrounding parts: the edges of the wound were kept in apposition by a single suture. When the puncture was inflicted, the animal

exhibited symptoms of enduring exquisite pain; but, during the day, he lay in a squatted position, and seemed quite easy: next day he was incapable of supporting himself on the wounded limb: on the third, fourth, and fifth, he kept the lying posture. but was easy, and took food: on the sixth, he began to lean on the paw of the lesioned member, which only bent under him in walking: on the ninth, he had recovered his former vivacity, and the perfect use of his leg; was very lively, ran and leaped: on the 13th, his appetite, spirits, and general condition were excellent: and, by the eighteenth, no trace of the operation remained.

Exp. 2d. An other dog had the left sciatic nerve subjected to the same treatment, which produced similar results: by the twelfth day, he had perfectly recovered the power of walking, without either lameness or the least stiffness of the member: on the twenty-fifth day after the operation the parts were examined, when the nerve was found to be in its natural condition; only, about three or four lines above its division into the internal and external popliteal branches, there was a point somewhat thicker and more opaque than the rest of the nerve: this slight enlargement occupied one of its sides and a part of its anterior face.

Serious accidents, our author goes on to state, when they do supervene, depend on the wound only as an occasional cause. in short, he says, puncture of a nerve is sometimes accompanied or followed by very intense pain in the wounded place; sometimes even by convulsions, which, as well as the pain, extend to distant parts, and occasionally implicate the whole system. These positions are illustrated by two histories of punctured nerves, in opening the external jugular vein, by Monfalcon; one from bleeding in the foot, and an other from a wound of the saphenal vein and nerve, by Sabatier; one, from Mr. Swan's work, of a cutaneous nerve of the arm injured in venesection; and one by Dr. Verpinet, by a condensed version of which we shall finish our account of this section.

Case. A young lady was accidentally wounded in the inferior and external part of the fore-arm about two inches above the thumb: the puncture measured about four lines in depth. The surgeon, having stopped a slight hæmorrhage, and believing that the acute pain which was felt might soon subside, endeavoured to heal the wound by the first intention: nevertheless, the pain continued with unabated intensity, not only in the fore-arm, but also in the thumb and extremities of the fingers. Sometimes it yielded slightly to the use of volatile and anodyne liniments, but it soon revived. The arm, at last, became the seat of lancinating pains and spasmodic movements, and even of convulsions: voluntary motion in the thumb and fingers became imperfect, occasionally impossible: changes of the atmosphere exerted a remarkable influence on these symptoms; they decreased in dry weather, and were aggravated when it was cold and moist: the north and north-westerly winds likewise caused injurious effects. Some benefit was derived from the baths

of Bourbonne, and from pumping its waters on the arm; but, in a short time, the symptoms re-appeared with extreme violence, the spasms became general, and the patient began rapidly to sink. M. Petit, of Lyons, was consulted: he advised the application of a "compressive" bandage and fomentations to the cicatrix, with an opiate mixture; and, if these means should prove unavailing, to destroy the parts originally lesioned with the actual cautery. The first set of remedies was employed for a month, without the least advantage; the other, on the contrary, determined results as fortunate as they were unexpected. Three applications of the cautery produced an eschar, which was soon detached; simple dressings succeeded; and the cure of a disease which had rendered exquisitely miserable the existence of a young person, alike remarkable for meekness and fortitude, was, from that time, complete.

CHAP. IV.—*Division of Nerves.* Section of a nerve, by a cutting instrument, is accompanied with severe pain, and instantly followed by insensibility of the skin, or paralysis of the muscles to which the nerve is distributed: its two ends, at the same time, are a little separated, and the space between them is increased by some motions and diminished by others. IN some cases of this kind, says Dr. D. on the margins of the wound being placed in apposition, and the parts kept at rest, re-union has been immediate and perfect: in others, though less frequently, very serious consequences have supervened. We transcribe the author's practical demonstration of this doctrine.

Exp. May 22d, 1822. Having exposed the right sciatic nerve of a little spaniel, he divided it in two places, about half an inch distant, and allowed the intermediate portion to remain: the wound was re-united by the first intention. The animal appeared to suffer great pain, followed by howlings, but with little agitation: immediately after the operation, it had general shivering; in the evening, shivering, dullness of the eyes, depression, and defective appetite: it could not lean on the wounded limb, which it trailed in walking, but, when standing still, kept bent and carried forward: having taken some drink it lay down, apparently much exhausted. On the 25th, the exhaustion and thirst continued; appetite slightly improved; the limb in the same state: next day there was great indifference to food: on the 28th, it began to lean upon the limb in walking, and voided its urine. on the subsequent day, it was overturned by an other animal, and uttered plaintive cries; on the next, it walked with greater ease and had better appetite: and, by the 31st, it continued to use the limb, which, however, made a short step in walking.

June 1st. The left sciatic nerve of the same animal was simply divided by a transverse incision, which occasioned acute pain; in the evening, spasmodic motions were observed in the left fore-paw; next day, the action of both the hind legs seemed to be alike in walking, notwithstanding the operation formerly performed on the right leg; the animal was moderately tranquil, and endeavoured to

scratch itself with the left hind foot. This state continued till the sixth, when it had an improved appetite, and walked with the claws of its wounded limb bent under the paw: on the eighth, it was dull, and appeared to be unwell; it trailed the hind legs in walking, and had no appetite; on the tenth it would not rise, and refused all kinds of food. These symptoms increased, with emaciation, debility, difficult respiration, and "engorgement" of the nostrils, till the twenty-second, on the night of which the animal died.

Examination of the right Sciatic Nerve. The two incisions were re-united by cicatrices, somewhat smaller than the rest of the nerve, which was whiter, firmer, and thicker, above than below the higher section: above this was a small gangliform enlargement, without any thing of the kind above the lower: the tissue of the cicatrices had a rose colour, but the usual nervous fibres could not be detected in it: the texture of the nerve itself was red and very vascular, and its fibres much less distinct below the two incisions than above the "first."

Left Sciatic Nerve. At the place of its division, the nerve was re-united by a cicatrix, more than three lines long, and evidently smaller than the rest of the trunk: above the section, it was white and compact, and slightly thickened; below softer and redder: examined with a magnifying glass, the inside of the cicatrix had a very red colour; below this, less so; above it, red only at the enlargement. *N. B.* Dr. D. has preserved these portions of nerves, and also the animals on which the experiments were made.

Abdominal Organs. The mucous membrane of the stomach and intestines was paler than is natural; the stomach contained a large quantity of frothy matter, but no traces of food; in the duodenum was found a little "clear"-coloured bile; the bowels were empty; the liver reddish-brown, crepitant, and easily torn.

Next in order follows a case by Professor Beclard, in which the cubital nerve, artery, and adjacent tendon, were divided by a sharp instrument: the wound was dressed and healed by the first intention, with recovery of sensation and all the functions of the parts. Our author has known such treatment of a divided nerve in the forefinger followed by equally happy effects; and so have we, and so has every body. It would be important to know the exact state of the nerves in regenerated parts and members restored by the processes of adhesion.

In traumatic inflammation, the two ends of the nerve, especially the superior, swell and become vascular; the surrounding cellular texture also inflames and becomes compact: the swelling and redness of the nerve extend in the end above the wound, but not in that below it: the small space between them is filled with the investing cellular texture, which contracts intimate adhesions with them: ultimately, the inflammatory redness dissipates; the enlargement of the nerve remains; and the cicatrix unites the two thickened

extremities. When there is much loss of substance, the ends of the divided nerve continue separated in proportion to the absence of structure: these and the intermediate cellular texture experience each of the changes already described. When the loss of substance is inconsiderable, the two extremities come to be united by a cicatrix less thick than themselves: its thickness, in general, is proportionate to the defect of substance: when this is considerable, the separated ends of the nerve grow rounded, the upper presenting a large, the lower a small enlargement, and both dip into the common cellular texture. Dr. Descot adds, in a note, that when simple section of the other nerves, such as the cubital and the pneumo-gastric, is practised, the separation is usually not so great as in division of the sciatic: the cicatrix is then thicker (*moins etroite*) and the two ends of the nerve are more intimately blended. The results of an other vivisection, and the dissection of a tetanic patient, are detailed in confirmation of these doctrines, but, as much important matter is still before us, we must pass these with a cursory reference.

Simple section of a nerve, in a part subjected to much motion, or where motion occasions very considerable separation of the nerve's divided ends, is followed by the same effects as section with loss of substance. When two separate sections are made, two corresponding cicatrices result; but the intervening portion of nerve shrinks and becomes smaller. After amputation, an "ovoid tubercle" is formed on the extremity of each divided nerve: this tubercle is usually three or four times thicker, and much firmer than the nerve itself; has a very different texture, but the same colour: its tissue is entirely fibro-cellular, in which the nervous filaments grow imperceptibly finer and disappear, so as to be incapable of being distinctly traced to its extremity. Sœmmerring refers to such tumours, the pains experienced in the cicatrices of amputated members, at the time of atmospherical changes: in his opinion, they swell in consequence of "hygrometric absorption," and thus exercise pressure on the medullary substance of the nerve.

CHAP. V. "*Distension*" *and Laceration of Nerves.* Violent distension of a nerve, by means of motion, is rare; its rupture impossible, without an accompanying over-stretching or laceration of the parts in which it is situated. In some instances, as in cases of chronic exophthalmy and palsy of the deltoid muscle, nerves may be slowly and progressively elongated, without their tissues being affected or their functions much deranged: sudden distension, on the contrary, often produces most important injury—over-extension, laceration, and a train of formidable symptoms. Dr. Descot instituted various experiments, on animals, from the results of which he infers that distension or the violent rupture of a very large nerve, does not occasion serious effects, unless when the lesion has place "far up" in the thigh, or in the pelvis: the history detailed by him is instructive, but too long for our limits.—Fontana and Orfila have shown, that the poison of the viper does not determine its characteristic effects when applied exclusively to the nerves.

CHAP. VI. "*Commotion*," *Contusion, and Contused Wounds of Nerves.* When bones sustain a concussion, the nerves which pass along them are implicated, and become the seat of a kind of stupor or numbness, with a greater or less degree of pain. The general "commotion," our author says, experienced by a member when struck by a bullet or other projectile moving with great force, depends solely, or at least principally, on the "commotion" of its nerves. Contusion, whether effected by compression or percussion, "always" determines solution of continuity in the more delicate parts of organs, whilst the others escape: such lesions give rise to the extravasation of fluids which are infiltrated or diffused into the parts that continue unimpaired; and these two causes of irritation —the "contusing" action itself, and the effusion resulting from it— excite an inflammation in the injured parts, which terminates in resorption of the extravasated fluids, and re-union of the divided textures: sometimes, however, it gives place to suppuration, or subsides imperfectly, and thus continues a "centre of pains and other accidents." What remains of this section is occupied with the outlines of fifteen pathological histories, including an experiment of our author's on a living dog, and a sketch of the subsequent dissection: most of them are selected from the books of eminent writers; we abbreviate one communicated by M. Ribes, as containing some facts very worthy of attention.

Case. Lesueur, aged 45, was wounded with a musket-ball, in the calf of his left leg, at the battle of Wagram, and lay till the following day on the field: much swelling of the parts ensued and prevented extraction of the bullet, which was evolved at the end of three months, and the wound soon afterwards cicatrized. On the 18th day after the accident, he began to exhibit a train of very extraordinary nervous symptoms, which resisted a great diversity of means for more than eight years. It was observed that, some days before each accession, a tumour about the size of a pullet's egg arose over the cicatrix, and felt painful on pressure: the leg became livid, and the patient's gait unsteady: by and by, the wounded member could not sustain his weight: convulsions supervened; and, beginning at the cicatrix, they affected all the left side of the body, ultimately implicating the right: the lower extremities were alternately bent at the knees, and extended: and these motions ended in a transient tonic contraction. In a short time, the arms ("*membres thoraciques*") underwent the same contractions; and then, says the reporter, the unhappy man became a prey to the most excruciating distress; he felt as if his bones were bruised, and the "nervous cords" experiencing laceration. He declared that his limbs were burning, and expressed his agonies by loud and fearful cries; on these occasions, a profuse sweat issued from all the pores of his body, and moistened the bed-clothes. His lower jaw was affected with tremulous motions, like those which have place in the cold fit of an intermittent: the abdominal muscles were not particularly contracted, but the posterior cervical sometimes sustained a certain degree of rigidity:

the pulse was frequent and concentrated; respiration preternaturally rapid; the intellectual faculties unimpaired; and he was tormented with unappeasable thirst. The subsiding of his paroxysms was announced by quick extensions and flexures of his limbs, which continued quiet in the last state for a few seconds, and then underwent the same contractions; in the end, a calm succeeded, but the patient required to remain some hours in bed to recruit his exhausted strength.

Lesueur was admitted into the "Hôtel des Invalids" on the 4th Nov. 1810; and, during the first six months, had daily accessions of his disease; their invasion, intensity, and duration, were uncertain; the longest paroxysms never exceeded three hours; after this period, he had a calm of forty days, in which he seemed quite delivered from all his distresses; but a new seizure manifested itself in daily attacks, and confined him to his bed for four months. At last, from August, 1812, to October, 1817, the intermissions were longer, being generally from ten to twelve weeks; but to this state of tranquility succeeded an accession which lasted forty days, accompanied with occasional seizures, excited and aggravated by the least error of discipline, moral as well as physical. In the intervals between his paroxysms, this man never enjoyed a perfect calm; he felt himself in a condition he could not define; shudderings and startings interrupted his sleep; he had frequent palpitations and sweats, which, though less considerable than during his seizures, were such as gave him much inconvenience; he was restless, irascible, hard to please, always wanting something, and never content.

Among the multitude of remedies exhibited for this man's cure, opium and moxa only were productive of any advantage; bathing proved utterly useless. At last, in a consultation, about the middle of October, 1817, it was resolved to attempt relieving his sufferings by an excision of a "very large piece" (nearly two inches) of the external popliteal nerve. This was done, with much dexterity, by M. Yvan, surgeon to the hospital; and, by the eighth day afterwards, the wound had cicatrized. Having slept a few hours after the operation, he declared that his condition was altogether changed; that he experienced such a total revolution, as to be no longer the same person; he was composed and tranquil: only he felt a pain in his foot which was entirely new, but this soon subsided; the sweatings, palpitations, startings, and shudderings, which formerly disturbed his sleep, also disappeared; sensation and motion, however, were lost to the parts over which the nerve is distributed. Since the operation, eight years, he has had six or seven accessions of the neuralgy, but in a much milder form; they were induced by fits of peevishness and anger: his health was otherwise good.

CHAP. VII.—*Wounds of Nerves, with Lodgment of Foreign Bodies in them.* Nerves are so small in size, says Dr. D. that we rarely find foreign bodies, introduced by means of a wound, remaining in their structure: he gives three cases from the Medico-Chirurgical Transactions, the Medical and Physical Journal, and the private

communications of Professor Béclard; in which accidents of this kind were followed by exquisite symptoms: of this last, we subjoin a condensed translation.

Case. A man, about fifty years of age, had a large aneurism in the ham, for which the femoral artery was tied near the middle of the thigh: a flat ligature was applied, cut short, left 60 hours in the wound, and then withdrawn: pulsation instantly subsided in the tumour, and never returned; but the blood's circulation was not re-established in the lower parts of the member, and gangrene supervened: it seized the foot, and greater portion of the leg. "Separative inflammation" now exhausted the patient, and brought his life into imminent danger: this led to amputation of the thigh; and among, the "multitude" of superficial arteries requiring to be tied, was that which passes between the branches of the ischiatic nerve. The wound healed almost entirely by the first intention, and the cure was nearly complete when tetanus assailed the sufferer and destroyed him, notwithstanding the employment of many energetic remedies. On inspection, the arteries generally were discovered to be indurated and ("*calcaires*") ossified: the sciatic nerve, on being examined at the stump, exhibited a considerable enlargement, which included the knot of a ligature that had not been detached. This person had formerly sustained an injury of the radial nerve. Does the author, by making this remark, propose to intimate that frequent nervous lesions tend to induce the tetanic predisposition?

Dr. Descot is of opinion that the effects produced on the nerves by affections of the teeth may have some relation to those determined by the lodgment of foreign substances; and, out of a great number of facts confirmative of this proposition, relates one communicated by M. Briquet: as, however, we do not perceive any thing very remarkable in it, we shall proceed to—

Chap. VIII.—*On the Ligature of Nerves.* Lesion of a soft part, produced by a ligature, is soon followed by infiltration, above, below, and around it, of an organizable substance, like that which agglutinates wounds: the tissues enclosed in a ligature inflame, soften, become liquified, so to speak, and are divided, more or less speedily, according to their nature and size; and the swelling and hardness of the surrounding parts gradually subside on the ligature being expelled, and go into that state which succeeds the healing of a wound made by a cutting instrument. The ligature of a nerve, however, presents some peculiarities: at the instant of its being tied, the nerve contracts distinctly; without doubt, says our author, from the interruption of continuity produced immediately in the softer parts of the organ: the membranous structure which remains enclosed in the ligature offers so much resistance that it is absolutely impossible to cut it through immediately, however great a degree of constriction be applied. Ligature of a nerve occasions intense pain, usually accompanied, in the lower animals, with excretion of urine and fæcal matter, and an interruption of the nerve's functions; when it is tied suddenly, the results are little different from those which

proceed from division of the organ with a sharp instrument: several facts are adduced in support of these statements.

Valsalva and Morgagni tied the par vagum of a dog, and soon afterwards untied it, but the animal died in five hours: the nerve had become thicker than it was before the application of the ligature. The former ascertained, that dogs expire much sooner from ligature of nerves than their section: he tied the eighth pair, in a young bitch, near the larynx; the animal instantly lost her voice, and, although the ligature was soon removed, and the edges of the wound kept in apposition by Nature, she never recovered it: tormented with efforts at vomiting, this animal died in eight hours after the operation. Having tied the same nerves in a dog, the ligature, which he drew very tight, was instantly unloosed; nevertheless, the animal began soon to vomit, and expired in 14 hours, making strong attempts to evacuate the stomach, and discharging frothy blood from its mouth.

On removing a ligature, we observe a depression on the nerve, but at the end of a few days this is effaced, and the part appears thickened. Galen had remarked, that a tight-drawn ligature induces a partial section of the nerve; so that, though it be soon withdrawn, the functions of such nerve are not the less suspended: it is only in cases where the ligature has been imperfectly tied, or consisted of an elastic substance, that the nerve's functions have ever been regained: this fact explains the circumstance of Vesalius, Columbus, Casserius, and Rialamus, having known the voice to be restored, on untying a ligature from the recurrent nerve: it also explains the results of Bidloo's and Stokhausen's experiments, that ligature or even section of the sciatic nerve does not destroy motion and sensation in the *whole* limb. Ligature of a nerve, even a large one, our author says, does not give rise to the convulsions, spasms, and other "grave accidents," which pathologists have been in the habit of ascribing to it: when allowed to remain on the nerve, it has the same effects as an incision; it occasions a breach of continuity and suspension of function: this is exemplified in three "observations" from Mollinelli's work on aneurism, but we have not space for their transcription.

Dr. D. proceeds to observe, that a ligature applied to a nerve determines, at the same time, above, below, and around the place, an effusion of coagulable matter, and especially an "ovoid" enlargement in the *superior* end. There is error, therefore, he adds, in the statement of Bidloo and others, that this enlargement ("*gonflement*") exists principally *below* the ligature: this enlargement is quite manifest at the end of a few days, after which it becomes vascular: the ligature, at the end of an uncertain, but not long period, divides the nerve, and is itself detached: then the two ends, retained in exact contact, and, as it were, united externally by a thickening of the surrounding cellular texture, and the deposition of coagulable matter, soon re-unite in the centre of the separation from which the ligature had just been evolved. In such cases, there is never, as in section of the nerve, a separation or displacement of the two

extremities: these remain always in perfect relation: for, when they have been totally divided by the ligature, they are already in part re-united around it. The swelling of the surrounding parts is gradually and completely resolved; that of the nerve, on the contrary, continues, principally above where the ligature was applied: this enlargement, says Dr. D. was found in the median nerve at the end of thirty years, after it had been tied along with the brachial artery: he views these facts as being established by the results of certain experiments and dissections, which afford some really interesting details.

When the ligature on a nerve remains in its place, the fact enters into the class of "Wounds of nerves complicated with the presence of Foreign Substances," and should be held as the cause of unfavourable symptoms. In some instances, a second amputation has peen practised with the design of removing the violent pain experienced in the cicatrix of a stump. Sœmmerring ascribes pain of this kind to the tubercle which forms on the extremities of nerves divided in amputation; but it appears, from the researches of Van Horn and Breschet, that the tubercle is not the cause of such pain. When the ligature has been evolved, ought we not, our author inquires, to attribute the continuation of the pain to the existence of a fibrous cord comprised in the enlargement of the nerve in the tissue of the cicatrix? There can be no reason, he adds why this phenomenon should not have place after section of a nerve with a ligature, as well as after its section by a sharp instrument. He then enumerates some "facts," to prove that in proportion with the re-union of the ends of a nerve divided by ligature, its functions, at first suspended, are gradually recovered and, in the issue, become perfect: one pathological history illustrative of this, from the pracice of M. Richerand, deserves every consideration, but its length precludes our offering the homage of a transcription to its merits.

Some persons believe that the favourable results of a ligature on a nerve can only be obtained when, in the same parts, there are other nerves, which, by their anastomoses with the former, are enabled to supply their functions. In our author's mind, however, this "hypothetical proposition" is inexact; and he regards, as being more conformable to facts, the doctrine, that ligature, as well as every interruption of continuity and function in a nerve, does not endanger life, so long as such nerve is merely the "conductor" of sensation and motion; and that if the patient survives, the re-establishment of its continuity and functions takes place: nevertheless, he adds, some authors suppose that certain ligatures become more dangerous when anastomoses are defective.

The ligature, and every other division of a nerve whose functions are essentially vital, as the pneumo-gastric, cannot be made on both sides of the body at the same time without occasioning sudden death: the process of re-union is then impracticable. But if the experiment is performed on one side only, and the animal survives, re-union takes place, and in a reasonable time the same thing may be done on the other side.

Others have taught, that the simultaneous ligature of the principal nerve and blood-vessels of a member must necessarily be succeeded by its becoming gangrenous: but, says Dr. D. we should carefully ascertain how much truth there is in this general proposition, and how many circumstances, in such a complicated lesion, ought to be referred to each of the particular lesions of which it is composed. On this head, he comes to the three following conclusions: 1st. We know positively, that in a healthy subject, and not very old, the ligature of the chief artery of a member produces only a very "momentary" suspension of the circulation, which is soon re-established by the collateral branches: 2dly, It is absolutely the same in regard to a principal vein, although some modern surgeons have asserted the contrary: and, 3dly, It is likewise the very same with respect to an important nerve; its functions are recovered "some time" after it had been tied. Now, he inquires, what shall be the result of a simultaneous lesion of the vein, artery, and nerve? This question leads him to review the experiments instituted by Valsalva for the purpose of refuting Varignon's assertion, that animals die instantaneously of apoplexy, on both nerves of the eighth pair being tied: he holds the results to be quite conclusive, and proceeds to state the effects of these experiments practised by himself on living animals. In the first, the injuries were too complicated to lead to any positive result; nevertheless, although the dog survived for six days, gangrene did not supervene in the members whose nerves and blood-vessels had been tied or cut. In the second, where all the nerves of the brachial plexus, as well as the arterial and venous trunks of the same member, were altogether tied, palsy of the member ensued; but, fourteen days after the application of the ligature, no symptom of gangrene or of infiltration had appeared: the limb, however, remained in a state of flexion, and the paralysis continued. In the third, which consisted of the same operation as the last, a most acute pain was felt instantly on the ligature being applied, and palsy, also, of the member immediately supervened; but, by the fourteenth day, when the animal was killed, no troublesome symptoms had arisen. On inspection, the brachial plexus of nerves and deep-seated blood-vessels were still firmly enclosed in the ligature, but the member, although carefully examined, did not exhibit any morbid alteration whatever. In three other cases, Dr. D. isolated the sciatic nerve, and applied a ligature to its trunk; but in one of them only was the process followed by mortification of the extremity of the member: in this, the dog was old, and the nerve tied at its issue from the ischiatic notch. The chapter closes with the sketch of a case which Mr. Swan adduces, to show how little capable the anastomosing branches are of transmitting the nervous influence after the division of a nerve with a sharp instrument, or a ligature which produces the same results.

CHAP. IX.—*Cauterization of Nerves.*—Cauterization, whether it results from the application of concentrated caloric, or of any caustic substance, produces an eschar, the separation of which is equivalent to a wound with loss of substance. Nerves are rarely, if

ever, the exclusive subjects of burning or cauterization: when injured in this way by themselves, or simultaneously with other soft parts, they are converted into an eschar, on the detachment of which there remains, between their two ends, a space proportionate to the extent of structure thus destroyed; and, in general, the cicatrix that closes the wound does not restore the nerve's continuity or functions. For this reason cauterization is usually preferred in cases of neuralgy, and most frequently determines favourable results, while simple incision is too often followed by a relapse. Dr. D. induced this kind of lesion in animals; in one instance, where the cauterization was very superficial, the nerve's functions were not destroyed; in another, complete cauterization instantly occasioned palsy of the limb. The history of both these experiments is given, with an account of the nerve's appearances in the latter, on the twelfth day after it had been injured. The animal walked on three feet, the palsy of the other being complete; the nervous trunk was completely divided across, and a space of more than an inch existed between the two ends; the upper was slightly thickened and flattened; the lower exhibited no traces of having been cauterized; and both of them adhered strongly to the surrounding parts, with which they were intimately blended. Additionally to these, illustrative of the same doctrines, our author relates a case of maxillo-dental neuralgy cured by the actual cautery; the patient, a lady of 50, afterwards enjoyed the "best" health.

Chap. X.—*Re-union of Divided Nerves.*—When a nerve has, by any means, been perfectly divided, the two ends readily unite, if they are allowed to remain in apposition. This fact, which is common to all organized and living structure, is incontestable; but, says Dr. D. it has been the subject of much investigation to ascertain whether the cicatrix is of the same texture, and performs the same functions, as the nerve itself; and especially when there is distinct loss of substance, whether a regeneration of true nervous tissue really unites the two ends. Our author goes very comprehensively into this inquiry; and, for the sake of precision, divides this section of his book into two parts. In the *first*, he states the facts, opinions, doubts, and conjectures of the greater part of physiologists—including Fontana, Monro, Michaelis, Arnemann, Cruickshanks, Haighton, Reil, Meyer, Zimmermann, Sœmmerring, Meckel, Boyer, Richerand, Delpech, Callisen, Monteggia, Swan, and Breschet, who have written expressly or generally on the re-union and regeneration of nerves. And, in the *second* he "exposes the results of his own observations." We must, however, pass over the former entirely, and restrict our account of the latter to a brief but faithful outline.

Re-union of the lips of a wound, our author observes, presents phenomena which are general or common to all the tissues and all the organs which have been simultaneously implicated. When a wound, for instance, divides the skin, cellular and subcutaneous adipose tissues, aponeuroses, muscles, nerves, blood-vessels, and lymphatics, and the edges of it are brought together and kept in exact contact, this wound, after the bleeding ceases, and the "trau-

matic pain" has subsided, if there was no accidental cause of irritation, agglutinates throughout by means of a viscid, colourless fluid, which is coagulable lymph, and consists of albumen and fibrin of the blood. This coagulable substance, this organizable matter, says Dr. D. constitutes the primary medium of all adhesions—of all reunions; this agglutination soon gives place to a real vascular reunion; and this re-union, moreover, is every where identical; it appears to be formed of compact cellular tissue, interspersed with an immense quantity of small vessels. By and by, however, this re-union assumes new characters; between the edges of the skin it becomes a tissue analogous to the dermal;—between the ends of the muscles, a kind of fibrous "intersection;"—and between the extremities of a tendon, a genuine tendinous substance. Instead of the innumerable quantity of minute vessels which render it every where homogeneous, three or four principal "arteriolets" re-establish a communication between the two ends of the artery which had been divided: in fine, the same thing nearly has place with every organ and every tissue in particular, the rest of the cicatrix in general blending itself completely with that part of the cellular texture whose continuity it restores.

Divided nerves re-unite in the same way as all other parts, and their re-union is speedy and exact in proportion to the accuracy with which their ends are maintained in apposition. *Ligature* of a nerve is constantly followed by an exact re-union of the two ends, and by a very prompt recovery of its functions. *Imperfect section* or *puncture* of a nerve, which has been accused, says Dr. D. of occasioning so many grievous accidents in man, does *not* occasion such accidents in the lower animals; its re-union, and the re-establishment of its functions, are speedy. *Complete section* of a nerve, in a part *not* subjected to much motion, is ordinarily followed very soon by an exact re-union, and the perfect recovery of its functions. *Complete section* of a nerve, in a part *subjected to much* motion, as in the vicinity of a joint, occasions, besides the primary, an accidental and variable separation; in such cases, the re-union, if it ever succeeds, is tedious and imperfect, and the restoration of function is also defective, or even never takes place. Finally, when there is *considerable destruction* of the nervous trunk, by excision, cauterization, or a contused wound, a great separation of its two ends remains, and its functions are for ever lost, whatever nerve be thus injured. This circumstance, says the author, proves that the nervous anastomosings do nothing towards the re-establishment of function. From all these facts, then, he adds, we may conclude, that nerves fairly divided do re-unite; and that, when re-union fails, this depends entirely on a considerable separation of the ends, induced by local motion, or by loss of substance.

When a nerve has been divided, an oozing of organizable matter takes place, for some days, around its ends, on its surface, and in the intervening space; the surrounding cellular tissue is penetrated by this matter, and loses its permeability; in this state, the ends of the

nerve are simply agglutinated together and to the adjacent parts, and its functions are still suspended, as they were immediately after its division. Forthwith the nerve's two ends, which are thickened, the investing cellular texture, and the organizable matter, acquire greater consistence, and become very vascular; in this state, which continues some time, the two ends of the nerve are united by an organized vascular substance, but still there is not yet a communication of nervous action between them. In due time the cellular tissue ceases to be compact and vascular; the intermediate substance gradually diminishes in size, consistence, and redness; acquires the appearance and texture of a nerve, and ultimately discharges its functions. This end is attained sooner and more perfectly, when the nerve has been simply divided, or the excised piece small, and in a part not much subjected to motion. On the other hand, when the separation has been important, re-union is never attained, or rather takes place through the cellular texture, which does not acquire, at a certain distance from each end, the nervous structure and qualities. The time necessary to a complete recovery of the structure and functions of a nerve has not been precisely ascertained. Dr. Descot imputes exaggeration to those writers who state its being several years; in his opinion, six or eight weeks are sufficient.

Division of the united pneumo-gastric and tri-splanchnic nerves, in the dog, uniformly occasion death, when it is practised simultaneously on both sides. It is on these nerves that the regeneration of tissue and the recovery of function can be most advantageously observed. Dr. Descot is convinced, by the results of many experiments, that it is neither by the interposition of a substance simply humid between the ends of a divided nerve, nor by the remote action of the nervous system, nor by the anastomosings of nerves, but by a real nervous cicatrix, that the re-establishment of nervous function is produced; it gradually and uniformly accompanies the progress of organic re-union. Five experimental histories, confirmatory of the preceding doctrines, complete this tenth division of the work. They exhibit the effects of nervous injury inflicted in various ways on living animals, and comprehend very minute but important details of the pathological symptoms and the organic lesions unfolded by dissection after death. We regard them as favourable testimonies of the author's zeal and science, and should willingly, but for their length, have inserted one or more of them in this article, in the form of a concise translation.

Chap. XI.—*Neuritis, Inflammation of Nerves.*—Nervous inflammation has been very seldom observed, and is generally confounded with the symptoms to which it gives rise. This, no doubt, depends on the difficulty of detecting its traces in the nerves, by reason of their whiteness, and the smallness of their blood-vessels: nevertheless, some observations in pathological anatomy do show that they have really been inflamed. Reil states, that a man who died of typhus, after enduring exquisite pain in the nerves, had these organs deeply coloured with blood, and that, on the neurilema being des-

troyed with nitric acid, the pulp of the nerve was yellow, the blood having penetrated the medullary substance itself, imparted to this its colour. Our author has seen inflammation of nerves: constantly, he says, in the vicinity of a wounded nerve, the organ may be perceived, in a few hours, to be swollen, dark red, and very vascular: on such occasions, the nerve's functions become deranged or suspended, but are recovered as the traumatic inflammation subsides. Anatomical alterations are sometimes found in nerves, which should undoubtedly be regarded as signs of an antecedent inflammation more or less manifest; these may be serous infiltration of their cellular sheath—adhesion to the neighbouring parts—abscesses in the course of a painful nerve; softening and purulent disorganization—enlargement in the vicinity of diseased joints—circumscribed tumours—cartilaginous, osseous, and calcareous transformations—and other morbid changes of structure. Inflamed nerves have been observed, on dissection, to be tumefied, reddened, and infiltrated with a gelatinous fluid, their vessels being injected, and exhibiting a kind of varicose dilatation. In the femoro-popliteal nerve this injection was found exceedingly distinct, forming round, oval, very regular patches confined to the neurilema, while the nervous pulp itself was of a dull grey, and inelastic. In another instance there was discovered on the same nerve, a nervous substance, shaped like a bead, the particles of which were hard, shining, fibro-cellular, and separated from each other by a soft deliquescent pulp, of a grey colour, inclining to red; the neurilema was thick, red internally, white and opaque on the outside. Finally, nerves have been seen enlarged, reddened, softened, with parts of them in the form of soft pultaceous swellings, from which oozed a "sanguinolent serosity," while their neurilema was granular, lamellated, opaque, injected.

As to the symptoms of neuritic inflammation, Dr. D. thinks they have been confounded under the name of pains, cramps, convulsions, emaciation, insensibility, palsy, neuralgy; nevertheless, he adds, it may be said in general, that the pain of acute neuritis is accompanied with a fever, which "is at least local." When this inflammation becomes chronic, the symptoms are altogether indistinguishable from those of neuralgy, "which is, perhaps, nothing else than a chronic neuritis," dependent on a particular organic lesion. Acute idiopathic inflammation of nerves is of very rare occurrence, but they are sometimes affected with the chronic kind, and this generally takes place at their ends in the stump of an amputated limb: in such cases, their size is increased to a certain distance, and their extremities assume the appearance of a gangliform tumour, very like the enlargement which forms the connecting medium between the two ends of a nerve which had been cut through. If we divide the nerve and tumour perpendicularly, we shall be able to trace the nervous fibres downwards into the tumour, and the coagulable lymph shall appear to be deposited between them: but, if the section is horizontal, the tumour presents a compact and regular aspect, like a piece of cartilage. In many cases of the ischiatic malady, Dr. D. believes the sciatic nerve to be the seat of the disease

the pain, in general, follows the course of the nerve so exactly, and the adjacent parts are so entirely free from every pathological appearance, that he must regard the nerve alone as the seat of the pain; and the affection itself seems to him to arise from an inflammatory state of the neurilema, which often terminates in the effusion of a serous fluid. Nothing is proposed as a mode of treatment; we therefore follow him to—

Chap. XII.—*On Ulceration of Nerves.*—Seven pages of the eight, wherein this section consists, are occupied with extracts and cases from Mr. Swan's book, with which our readers are already acquainted; we need not, therefore, advert to these, but may notice the observations of two "eminent authorities," with the author's concluding remark. Bichat states, that alteration never takes place in the nervous tissue, nor is this the seat of tumours, funguses, ulcerations, as it does in the systems whose organic properties are predominant: on the other hand, Béclard, in his addition to Bichat, declares, that suppuration, gangrene, ulceration, may occur in nerves, but they are never so affected primarily. With this last opinion our author is agreed: he concludes that ulceration of a nerve is very rare, but at no time a primitive affection; and mentions the circumstance of Béclard's having often said to him, that he regarded "isolated" (idiopathic) inflammation of a nerve as a thing whose existence is exceedingly problematical.

Chap. XIII.—*Tumours of Nerves.* "Neuromes," or tumours of nerves, very improperly denominated ganglions, from the alterations of tissue which most frequently occur in these organs: Dr. Descot distinguishes them into two kinds, having relation to their size and situation, each of which he describes in a separate section.

§ 1. *Painful Subcutaneous Tubercle.* These are roundish and a little flattened: their size varies from that of a millet-seed to a bean; they are situated in the sub-cutaneous cellular tissue, on all parts of the body, but most frequently on the extremities; they are generally solitary, but in a few rare instances two or three of them have constituted a group; usually they are enclosed in cellular membrane, and adhere to the neighbouring parts by nervous filaments; on other occasions, they are situated in the substance of the nerve itself, whose fibres divide and surround them; and sometimes they have a very intimate connexion with the nearest vein. In a great number of cases, they appear in the form of a small fibrous cyst, enclosing a loose concretion, while the surrounding cellular texture and the skin retain their natural state. Commonly they are whitish, occasionally brownish, internally or at their surface: their consistence is usually firm, sometimes cartilaginous: in general, they are so small as to be perceptible only to the touch; they occur much less frequently in men than in females, in early than in advanced life: their causes are various and uncertain: their formation and growth are very rapid, till they have attained a certain size, when they remain almost stationary for many years.

Unimportant as these small tumours seem, they often occasion intensely acute pain, of which the paroxysms have uncertain returns: this pain is exquisite in the tumour which is its seat, and darts instantaneously, ("*like an electric commotion,*") into the neighbouring parts, especially in the course of the nerve: it is at the beginning of an accession, but gradually becomes more

its returns vary from ten minutes to two hours; but the frequency and intensity of these increase proportionately to the duration of the disease: some patients often sustain such seizures during sleep, from which they awaken with a start. Ordinarily, these tumours cause little inconvenience; but, during an attack, they, and the skin over them as well, are distressingly sensitive, and this sensibility is sometimes materially increased by the atmospheric changes: then, also, in certain persons, they have been observed to increase in size, and to exhibit a purple or blueish speck: in a few instances they spontaneously disappear: but unless they be extirpated, they most frequently accompany the sufferer through life. The remedy is excision and treatment of the wound for a cure by the first intention. Twenty-one cases, from Portal, Cheselden, Camper, Siebold, Newmann, Wood, Thomson, Newbigging, Gillespie, Bisset, Pearson, Hall, Windsor, Nicod, Marjolin, form the illustrative details of these doctrines; but to them all we cannot do more than refer.

§ 2. *On Voluminous or Clustered Tumours of Nerves.* Tumours of this kind are usually formed of a scirrhous tissue, varying in firmness, and interspersed with vesicles or small cysts, enclosing a syrupy fluid; sometimes, each of them consists of a single cavity, whose sides are fibrous or cartilaginous, and its contents a thin fluid: at other times, it appears to be of the "encephaloid tissue," with circumvolutions and vermicular elevations: oftenest, the nerve can be traced to the surface of the tumour, to which it furnishes an envelope. Most frequently, these tumours are moveable *laterally*: but when drawn *longitudinally*, in the course of the nerves, they cause much pain: the skin over them is generally healthy: they almost all appear to have an origin and cause which are unknown or very obscure: they have not been observed before the age of puberty, and are met with in men much more frequently than in females. Unlike the subcutaneous tubercles, they usually increase very rapidly in size, and undergo successive augmentations or "degenerations" of their structure: they are, for the most part, very painful. When susceptible of cure, extirpation is the means to be employed.

Dr. Descot has exercised much industry in arranging the comprehensive enumeration of anatomical and chirurgical facts, which in the next part of his 13th chapter, constitute the foundation of his sentiments, now before our readers, regarding the nature and seat of the large-sized or clustered variety of nervous tumour: we refer to them, with approbation, as sketches of much value in the history of pathology: they are followed by the details of five select cases, descriptive of the characters and treatment of the same important lesions.

CHAP. XIV.—*Neuralgy.* We confine ourselves, at present, to Dr. Descot's observations on the neuralgic disease. It is, he says, a painful affection of a nerve, distinguishable by the seat of the pain, which is always fixed over a nerve, and by its nature extremely acute and lancinating. In common with other lesions of nerves, it may affect the "nervous cords," the plexus and ganglions, and the nerves which terminate in particular organs. Affections of determinate nerves, which form the subject of this chapter, are alone distinct; the rest are generally confounded with loss of function, or an organic change: and, indeed, if those of the nerves of the face

and extremities, especially the lower, be excepted, all others are exceedingly obscure, uncertain, and difficult to be distinguished.

The subcutaneous nerves, particularly those of the face, are most liable to this affection: their superficial situation exposes them much to mechanical lesions or impressions of the atmosphere. Neuralgy most commonly results from an exposure to cold, or the suppression of a sanguineous, serous, mucous, or purulent discharge: it often exists in persons who are subject to other "moveable" diseases, as rheumatism or gout. Women, particularly after their critical period has past, are less frequently affected with it than men: it is sometimes caused by the presence or contact of an extraneous substance, or another diseased organ: in many instances, it proceeds from mechanical lesion; often from a small cartilaginous tumour, or a cancerous degeneration compressing or affecting a nerve. Occasionally, says Dr. D. the cellular sheath of the lesioned nerve has been injected with a serous infiltration, or even with suppurative inflammation, and the nerve itself having a reddish colour. In fine, he adds, in all other cases, the very vascular texture of nerves, the nature of the causes which determine neuralgy, the phenomena that accompany the paroxysms of pain, all conspire in suggesting the idea that the disease is nothing more, at least in many instances, than an intermittent or remittent inflammation of a nerve. Dr. D. treats of five kinds of neuralgy, the chief of which we shall briefly notice.

Facial Neuralgy. This form of the disease, our author observes, presents accessions of pain, with intervals of ease, and the seizure ordinarily begins with the violence of an electric shock: it is, however, announced sometimes by the "perception of an odour," an itchiness in the disease's seat, a kind of *aura epileptica*, a palpitation or "formication" in the eyelids, a particular sense of tension in the palate or nose, or by a distressing contraction of the arm: sometimes, the pain rests in a circumscribed point; at other times, it is widely diffused: it occupies, in some instances, the orbito-frontal branch of the trifacial nerve; in others, the submaxillary branch; and in others, the inferior maxillary; but it may affect the whole of one of these three nerves, and all their ramifications. Most frequently, it is confined to their superficial or facial portion: occasionally, it occupies but one branch, or even a single fibre of a nerve only: in other cases, the whole of one side of the face, most generally the right, very rarely both sides, are affected. Ordinarily, the pain is fixed: sometimes variable, and, as it were, fluctuating between different parts; it has been known to leave one side of the face and attack the other. Some writers, says Dr. D. have said that it affects the facial nerve; but they have not related any distinct examples of it: be that as it may, he adds, "its situation can scarcely be compared to any other." It surpasses, "in atrocity," the most violent pains of tooth-ache or ear-ache: the patient is in "real despair;" ordinarily he can "neither speak, nor chew, nor swallow:" some persons, however, have the lips and tongue constantly agitated by particular motions, accompanied with noise, and resembling that which is caused by "manducation;" these can both chew and speak.

Strong pressure, in general, can be better endured on the affected parts, in this form of the disease, than a slight touch: the muscles of the face, especially those of the lips, are often disturbed by con-

vulsive motions or spasmodic contractions: occasionally the patients fall to the ground, or on their knees, and are seized with general convulsions. Most frequently, during a paroxysm, the countenance is red and swollen; sometimes it is pale, and grows livid: in other cases, the blood vessels of the affected part are distended: our author has seen the temporal artery, in particular, become very large, and be stretched like a cord: red streaks, also, are "sketched" on the skin of the forehead, the nose, and the gums: there is little fever, and the pulse is regular, often slower than in health: in general, the seizure is short in proportion as the pain is exquisite: commonly it lasts for a few minutes only, seldom for fifteen minutes, very rarely for a whole hour; it subsides with a gradual, sometimes a sudden decrease of the pain, followed, occasionally, with a copious flow of saliva, tears, mucus from the nostrils, and eructations. The intervals between the paroxysms are often "regularly equal," often prolonged, without any regular type, for hours, days, weeks, months, or even years. Women appear to be more frequently affected with "*prosopalgy*" (Dr. D.'s new name for neuralgy) than men: it occurs sooner in the former than in the latter, in the decline of life: affects the rich in more instances than the poor: is seldom met with in hospitals: prevails most in cold countries; and, while it may sometimes attack persons enjoying perfect health, more frequently seizes those who are affected with piles, gout, diseases of the abdominal viscera, derangement of periodical discharges, and cancerous maladies. Among its chief exciting causes may be ranked, injuries of the head; suppression of evacuations, natural, artificial, or morbid; effects of exposure to cold; and depressing affections of the mind. When the disease already exists, accessions of it are often induced by anger, terror, a bright light, using frictions on different parts of the body, or touching them, especially those that are affected by manducation, speaking, and laughter. Pathologists have essayed to discover its proximate cause in the arthritic, catarrhal, and carcinomatous "vices," in a topical affection of a nerve, or an "alteration of the osseous canal," through which it passes, and finally, from a direct asthenia; from all which an "augmentation of *incitability*" should result. The disease consists in paroxysms, and is not necessarily accompanied with fever (*apyrectique*); it is difficult, says Dr. D. to rank it constantly among the inflammatory affections. Prosopalgy in part, he adds, exhibits many varieties, according to its causes: 1st. It appears sometimes to be traumatic; 2d. Inflammatory, in those cases wherein it succeeds a sanguineous evacuation, and is accompanied by a "*local fever*;" 3d. It seizes persons subject to rheumatism, and then it assumes the "moveable" character of that disease; 4th. In some instances it is "*metastique*;" 5th. It is occasionally connected with abdominal affections; 6th. At other times it attacks the gouty; 7th. It is sometimes an accompaniment of carcinomatous diseases; 8th, and of the syphilitic; 9th. Frequently, in fine, it depends, like the other neuroses, on an irritation of the nerves, the *material* cause of which is very obscure. It is exceedingly unsusceptible of a cure; nevertheless, adds the Doctor, here are examples of its having been cured; but, as it is periodical, we should be careful not to mistake an interval for a complete cure. Its cure is sometimes accompanied with a cutaneous erup-

tion, or a critical discharge; occasionally, persons cured of it become affected with abdominal dropsy, cancer, or some other "cerebral neurosis." Dr. Descot laconically concludes—"for the cure of this affection, they have employed a crowd of dietetic, pharmaceutical, and chirurgical remedies." Next follow one "observation" of the *facial*, one of the *maxillary*, and three of the *sub-orbitary* forms of the neuralgy; and this brings us to that of the "*members*," of which we shall give a sketch.

Neuralgy of the Extremities. This occurs oftenest in the ischiatic or femoro-popliteal nerve; sometimes in the crural, in the cubital and radial, and in the soles of the feet: it has also, now and then been observed in some of the nervous branches of the extremities. In *ischiatic* neuralgy, the pain arises between the great trochanter and the ischium, shoots upwards to the sacrum and the loins, and particularly downwards, to the posterior and superficial part of the thigh, as far as the hollow of the ham: but it does not always confine itself to these parts, says our author, for it may extend from the external tuberosity of the tibia to the malleolus externus, following the external edge of the crest of that bone, and terminating in the sole of the foot: the femoral muscles become flabby, and the whole of the limb grows lean. *Crural* neuralgy is recognized by a pain which begins in the groin, descends along the internal face and surface of the thigh and leg, and ends in the back of the foot: sometimes it originates in the toes, and ascends to the inguinal region. In all cases of this form of the disease, the pain undergoes exacerbation at night; and, in the ischiatic kind, it returns periodically, especially so long as the affection is recent. The pain he suffers is so violent, that the patient cannot remain in bed, the heat of which is intolerable: neither can he sustain himself on the affected limb, though it still preserves the power of motion unimpaired: this, however, is seized with cramps and tremblings; and, if the sick person attempts to stand on the sole of his foot, it becomes livid; and the veins, extensively distended, acquire a great resemblance to metallic cords. Fever does not accompany the disease in its first stage; in time, the pain decreases, then grows more obtuse, and finally disappears; but then, the limb *first* exhibits flaccidity of the gastrocnemial muscles, and, *ultimately*, progressive emaciation. The general health is "scarcely affected" by the crural and ischiatic neuralgies; nevertheless, people having violent attacks, experience inappetency, epigastric pains, attended with squeamishness. The disease may prove the cause of palsy, and atrophy of the lesioned parts. In *cubital* neuralgy, the pain begins in the arm-pit, and, most commonly, reaches to the bend of the arm, sometimes even to the hand, which it renders œdematous: generally, it is most severe in the space between the arm-pit and the elbow, particularly on its being touched: it is ordinarily periodical: in all cases, the exacerbations take place during the night, and occasion sleeplessness; the patient raises his arm during a paroxysm, compresses the swollen hand with the other, and complains of a sense of anxiety almost indescribable: accidental emotions readily induce paroxysms, or render the existing one more exquisite: when the disease is recent, the temperature of the arm evidently rises: if confirmed, the arm shrivels, and

the skin on the inside of the hand becomes wrinkled. The cubital and ischiatic nerves appear to be more subject to neuralgy than any others; because, throughout a very long course, they are covered only by a small number of muscles, and, in consequence are exposed to external lesions: moreover, the neurilema of the sciatic nerve is so loose as to leave sufficient space, between itself and the pulp of the nerve, for the admission of morbid depositions; besides, it receives arteries which "facilitate in it the developement of inflammation." Ischiatic neuralgy is more common in man than in females: it assails both sides indiscriminately, but rarely occupies both extremities at the same time. The exciting causes of neuralgy of the extremities, are, wounds and contusions; exposure to cold; lying on the cold ground, especially when the body is heated; a morbid metastatis; suppression of the hæmorrhoidal and lochial discharges, or of the secretion of milk; and particularly gout. The crural may proceed from puncture of the saphenal nerve in venesection, and, also, sometimes from an affection of the uterus. Two practical "observations" explain this description, but these we cannot copy.

Neuralgy of the Trunk. Several cases of this affection in nerves of the sides of the chest and abdomen have been described by pathologists. A woman, on the subsidence of her monthly discharge, was seized with an acute pain between the eighth and ninth ribs: it followed the distribution of the intercostal nerve, returned in irregular paroxysms, and continued till her death. On dissection, the nerve was found to be reddened and shrunk. For several years past, Professor Fouquier has distinguished neuralgies of the chest; and M. Nicod, has published some cases, and, at the same time, stated that he has seen *more than two hundred.* He says that they occur fifteen times in the left side for one in the right—that they are very rare in men—have almost always their seat near the anterior extremity of the seventh, eighth, and ninth ribs—and that they are usually complicated with similar pain in the mamma, the epigastrium, the bowels, or the uterine dependencies. He believes that this affection has often been misunderstood, and that many practitioners have regarded it as an *abdominal inflammation.* Professors Chaussier, Richerand, and Delpech, have observed an ilio-scrotal neuralgy: its seat is in the anterior branch of the first lumbar nerve; it stretches along the haunch, hip, and groin, and terminates in the scrotum or labia of the vulva. It differs from the nephritis, in there being no alteration in the urinary secretion. M. Coussays has described, under the name of Lumbar Neuralgy, a pain which had its seat in the haunch, and in the posterior branch of the first lumbar nerve. The pain underwent violent accessions, was always attended with vomiting, and sometimes followed by diarrhœa, head-ache, and fever: the accessions lasted several days. It appears to me, says Dr. D. that this affection was an "ureteritis," and not a neuralgia.

CHAP. XV.—*Local Paralysis.* Paralysis, taken in its general acceptation, is the "abolition" of motion or sensation, or of sensation and motion both together: it may be universal, and then it almost immediately terminates in death: when it affects the "muscles of the skeleton," it constitutes *external* palsy: it is *internal*

when seated in the viscera: it may attack one side of the body only, the inferior portion of the trunk and the abdominal extremities, or one of the arms, and the leg of the opposite side.—Cases of this kind, of course, do not enter into the subject of this chapter, inasmuch, says the author, as they depend on an affection of the spinal marrow or the brain.

Local palsy most frequently affects the muscles of the face—sometimes those in other parts of the body; it depends generally on a local affection of the nerves. Many instances of the facial kind are related in books—Dr. D. has seen a "certain" number. When one side of the face is affected, as it often is, and the right especially, the disease constitutes a facial hemiplegy. Usually it comes on suddenly; in other cases it is preceded by a kind of acute rheumatism of the face, or rather a rheumatic facial neuralgy; the face is then drawn towards the affected side, and often expreses the sardonic grin. Persons suffering from this affection, lose the power of raising or depressing the eyebrows—of closing or opening the eye-lids—of elevating the nose or lip—of dilating the nostrils—of raising the angle of the lips—of shutting the mouth—of retaining the saliva or food—or of turning under the teeth the portions of food which accumulate between them and the diseased cheek. Mastication is seldom impeded, and the tongue remains unaffected, except in seizures of apoplectic hemiplegy. When the disease continued through life, different lesions of the facial nerve have been detected, and also of the parts which surround it; as, thickening of the sheath of the nerve, necrosis at the "spiroid canal" of the temporal bone. In other cases, a portion of the nerve has been cut out, in extirpating a deep-seated tumour in the parotid region. The weight of such a tumour, by compressing the the nerve, has induced a facial palsy. Very generally the disease arises from sudden exposure to cold, and then it appears to depend on a neuritis: it commonly subsides with equal rapidity. In persons having rheumatism in other parts of the body, it sometimes supervenes without any manifest cause. Suppression of an exanthematous eruption, and, indeed, all the causes of inflammation, may be the causes of this affection. It has more than once been the result of a severe blow on the head.

Local palsy, moreover, occurs in the muscles of the head and neck, in those of the thorax and abdomen, and in those of the extremities, the upper as well as lower. It has been observed as a sequela of "saturnine colic" (*col. pictonum*), of dysentery and "other" affections of the colon, and of diseases occasioned by worms; in all which cases it appears to be transmitted through the abdominal plexus, especially the intestinal, to other nerves, by means of their anastomotic communications.

Local affections of nerves may give rise to a multitude of neuroses, and other general affections. *There is not, indeed,* says Dr. D. *one nervous affection, generally considered, that may not be determined by a local affection of a nerve.* Thus, besides the neuralgy and palsy just described, convulsions, epilepsy, tetanus, and all the other neuroses, are often occasioned by the mechanical lesion, inflammation, the transformation of its texture, or, indeed, the "degeneration" of a nerve, or from some analagous affection of the parts

immediately adjoining. Nevertheless, as these neuroses often depend also on perceptible alterations of the "nervous centres," they are usually regarded as general affections of the nervous system; for which reason, says the author, we shall dispense with speaking of them in this dissertation. Dr. D. next proceeds to give what he calls a very curious case of alteration in the third pair (*trijeaumeau*) of nerves, from the practice of M. Serres, and then concludes his volume with some "observations" of local palsy. The first of these, and that communicated by M. Serres, are valuable pathological documents, and may be consulted with advantage in the original.

We regard this dissertation of Dr. Descot's as a commendable essay towards the advancement of pathological history, and, consequently, as being in some degree adapted to facilitate the study of this branch of medical science; for this reason, we have thought it right to exhibit a comprehensive view of his doctrines, leaving our readers to examine, generally, the facts which the author has selected for their foundation. In all that concerns the treatment of the local affections of nerves, the book is useless: but the Doctor has not undertaken to discuss this difficult question, and assuredly he had a right to choose his own subject. We close his book, in fine, with sentiments of gratitude and respect; and our desire is, that he may be inspired with a large portion of his patron's spirit.

X.

A Physiological Inquiry respecting the Action of Moxa, and its Utility in inveterate Cases of Sciatica, Lumbago, Paraplegia, Epilepsy, and some other painful, paralytic, and spasmodic Diseases of the Nerves and Muscles. By WILLIAM WALLACE, M.R.I.A. &c. Surgeon to the Charitable Infirmary of Dublin; and to the Infirmary for the Treatment of Rheumatism and Cutaneous Diseases, in that City, Lecturer on Semeiology and Clinical Surgery. One vol. 8vo. pp. 148. Dublin, Hodges and M'Arthur, and W. Curry and Co.: London, Longman and Co; and M'Lachlan and Stewart, Edinburgh. 1827.

THE author is anxious to overcome the prejudices which exist in these kingdoms against the use of Moxa, and desirous to exalt a remedy so valuable in public estimation. He is certain that the employment of it is impeded by its mode of action having been compared and confounded with that of other agents; and he strives to demonstrate, *in limine*, that the prevailing opinions respecting this subject are altogether erroneous; and to prove that the moxa affords a remedy which cannot be equalled. His views are illustrated by select cases of an unequivocal nature, because other measures had been tried in vain, and the cures were principally accomplished by this agent; and his opportunities have been greater than those of hospital surgeons in general, from a connexion of above eight years with the Dublin Infirmary for Diseases of the Skin.

The moxa may be defined to be any substance whose gradual combustion on the skin is requisite for the relief or cure of disease.

The remedy is, in truth, a very ancient one, but its present celebrity on the continent arises from the writings and exertions of Larrey, Percy, Dupuytren, Pelletan, Richerand, and Roux. The effects of it have been erroneously compared with those of a blister or issue, whereas, when properly applied, and in appropriate cases, the moxa produces neither inflammation nor discharge, except in rare instances, and even then they are contingent, and not salutary occurrences. The moxa has been condemned as a most painful application; yet those that have undergone it, have acknowledged that the pain is not equal to that of a blister, or caustic issue. Sir William temple, a name dear to every Englishman as the patron of Swift, applied the moxa to his own person, and thus describes its consequences: "For the pain of the burning itself, the first time it is sharp, so that a man may be allowed to complain: I resolved I would not, but that I would count to a certain number, as the best measure how long it lasted: I told *six score and four as fast as I could*, and when the fire of the moxa was out, *all pain of burning was over*. The second time was not near so sharp as the first, and the third a great deal less than the second. The wound was not raw, as I expected, but looked only scorched and black."* Kempfer† observes, "The pain is not very considerable, and falls far short of that which is occasioned by other caustics or actual cauteries. I have seen many times the very boys suffer themselves to be burnt in several parts of their body, without showing the least sense of pain.

The author, after stating certain experiments and observations, concludes that the application of a precise degree of caloric to the body is followed by a *contraction of the capillaries*, and an *increase in the rapidity of their circulation;* and that this contraction does not proceed from a mere *physical* action, but is the result of the influence of heat on the *vital properties* of the vessels. Yet it is important to decide, whether this influence of caloric in exciting the actions of the frame continues beyound the period of its application. Experiments and observations would seem to prove that it does; but another question springs from this, namely, are the effects of caloric limited to the point to which it is directly applied, or do they extend more or less beyond that point? There is sufficient proof that caloric can excite an action in living structures to a considerable extent; for it acts on the capillaries as a local tonic, or stimulating astringent, and the power which this class of remedies possesses, of extending their influence by sympathy along continuous surfaces, or similar textures, is well known. The direct effects of the moxa are seldom, if ever, confined to the skin. If an eschar be formed, that eschar extends to the superficial fascia, or subcutaneous cellular tissue; and if the moxa be applied, through the medium of a needle, the caloric may be made to propagate its influence to any depth. Caloric, then, applied under certain circumstances, and with appropriate restrictions, stimulates, in a powerful manner, the capillary vessels, causing them to act with more force, to contract their diameters, and to circulate their blood with greater velocity; and, either by this action on the capillaries, or by a direct one on the

* Letter of Sir W. Temple, Bart. &c. Swift's Ecl. p. 135, vol. I. Lond. 1720.
† History of Japan, vol. II. sect. iv. page 39.

lymphatics of the part, it has also the power of exciting the function of the absorbents in a remarkable manner. Again, the beneficial influence of moxa, in relieving or curing disease, apparently depends on its tonic action over absorption and capillary circulation. Hence, it should be employed in those cases only, in which there exists a state of debility of the capillaries, a consequent retardation of their circulation, and a diminution of absorption; and invariably avoided whenever there is increased action, or active inflammation.

"I have heard of, I shall not say irretrievable mischief, from the employment of moxa in the state of increased action and acute inflammation; but I shall say, I have often heard of much unnecessary pain having been produced, and considerable aggravation of those symptoms which it was meant to relieve. I will candidly admit, that misapplication of a similar kind occurred in my own practice, before I had formed a correct opinion respecting the mode of action of this powerful remedy. Having been taught to suppose that its therapeutic influence is analogous to that of a blister, I formerly employed it indiscriminately in those cases in which blisters are commonly applied; and it is not necessary to observe, after what has been said, that it must have often failed to produce the relief I intended." "Although the effects of moxa are so universally compared to those of a blister, it can never be used upon such a principle. Certainly heat may be so applied, as to excite, like blisters, vesication and discharge, and cutaneous inflammation; but, while it produces these effects on the skin, it will act on the deep-seated parts as a powerful stimulant, and thereby often cause, in cases to which blisters are peculiarly suited, more injury than it can do good." "Let it, therefore, be laid down as a principle not to be deviated from, that this remedy shall never be employed in cases of increased action, or of active inflammation, or even in cases of subacute inflammation, that is, when the acute inflammation is lapsing into the state of chronic action; and this principle should be implicitly adhered to, whether the active inflammation has attacked parts previously in a state of health, or has supervened on the state of passive inflammation." 49, 50.

If a part be not fit for the application of the moxa, it must be made so by appropriate means. One of the most useful external remedies for the reduction of increased action is the warm bath; yet caution is demanded relative to its temperature. If applied as an antiphlogistic, it should not be used higher than 97 Fahr. nor lower than 80°. The patient should always remain in it, provided no inconvenience be experienced, forty minutes; and, in general, a much longer period. Evaporating lotions are of considerable utility, and, for their perfect and constant application, the author has invented a very convenient instrument; and of which a plate is given. It is now employed in the Charitable Infirmary of Dublin with great advantage; not only because it affords the means of treating certain cases with accuracy and care, but also from its causing a saving of expenditure in bed-linen. Such an instrument, in our opinion, deserves the attention of every surgeon; and is well worthy of immediate trial; and consequent adoption, if it realize expectation. We would observe, that what Mr. Wallace writes on this, and similar subjects, is highly deserving of consideration, inasmuch as he has long been intimately connected with large public establishments, in Dublin, where the moxa, evaporating lotions, cupping, friction, and shampooing, are necessarily used on a most extensive scale, and under the most auspicious circumstances. For these reasons, we shall transcribe his interesting observations on a new mode of cupping; and, ultimately, advert to his remarks on friction, and introduce his account of the practice of shampooing.

"I prefer the following mode of performing the operation of cupping; and, since I have adopted it, I have never failed to obtain any quantity of blood required; nor have I ever seen it fail in the hands of those pupils who have adopted it by my directions. In the first instance, let me observe, that for the purpose of exhausting the cupping-glasses, the combustion of a few drops of any spirituous liquid on a little tow or lint, is the mode which I much prefer: not only because it is more convenient, by enabling us to dispense with a number of instruments, but also because the degree of heat produced renders the circulation in the cutaneous capillaries more rapid; and, consequently, facilitates the discharge of blood when these vessels have been divided. A cupping glass having been thus exhausted and applied for some minutes to the part, as well for the purpose of determining to the skin, as to mark the extent of surface which should be scarified, with the assistance of a lancet-scarificator or gum lancet, as it has been called, drawn lightly over the skin and with great rapidity, I traverse the surface, as far as the mark formed by the edge of the glass, with superficial incisions about the fourth of an inch distant from one another. These incisions should be so slight as to be scarcely visible. The operator need not fear that they will not bleed, for the moment the cupping-glass shall be applied, the blood will be found to stream from them with a rapidity which quite surprises those, who, for the first time, have seen the operation thus performed. The reader may suppose that it is more tedious, and, therefore, more painful; but, I assure him, he would be surprised at the rapidity with which the lancet-scarificator may be made to traverse the surface; and that this operation is not so painful as that in common use, I have had innumerable opportunities of ascertaining. The structure of the integument explains the superiority of this mode of operating, and affords proper rules for its performance. The vascularity of the skin is so very different on the external and on the internal surface, that the former may be considered as one of the most vascular tex tures of the body, while the latter is one of the least vascular." 62.

There are various modes of applying the moxa. Different substances have been used in different countries to produce moxabustion. The Nomades employed wool, and certain spongy matters growing upon oaks, and springing from the hazel—the Indian, the pith of the reed, and flax, or hemp, impregnated with some combustible material—the Armenian, the agaric of the oak—the Chinese and Japanese, the down of the artemisia—the Thessalian, dried moss—the Egyptians, Arracanese, and several oriential nations, cotton—the Ostiaks and Laplanders, the agaric of the the birch—and the Aborigines of North America, cotton and dried wood. Baron Percy prefers the medulla of the helianthus annuus, or sun flower, and when this cannot be obtained, cotton impregnated with a saturated solution of the nitrate of potash; while Larrey employs a cylinder of carded cotton unimpregnated, but surrounded by a capsule of linen. Caloric, however, is the only therapeutic agent evolved during the combustion of these various substances, and consequently that should be selected whose combustion is slow and steady. The author forms his moxa, by immersing either surgeon's lint, or fine linen, in a filtered solution of chlorate of potash, in the proportion of one drachm to four ounces of distilled water. This burns slowly, but steadily: even the blow-pipe produces no sparks; and there is neither trouble to the operator, nor alarm to to the patient, from the combustion being scarcely observable. Fine linen will answer best for moxas of a small size. The substance used must be perfectly dry when folded, should possess a proper degree of firmness, and after it has been rolled up, and fastened with two

or three stitches of a needle, the end ought to be cut to make it level for application. The length of the moxa should be about three-fourths of an inch, and the diameter may vary from one quarter to a whole inch.

"The instruments which I use in applying the moxa are of the most simple kind: a porte-aguille, which I have invented (see plate), or a pair of dressing or artery forceps, furnished with a screw at about three-fourths of an inch distant from their point, which screw serves to press the blades of the forceps very tightly together; a bit of small, flat, silver wire, about three inches in length; a bit of card paper, a blow-pipe; a set of needles; and a small glass tube, are all that are required. With the silver wire a small hoop is formed to grasp the moxa, the size of the hoop being made to vary according to the size of the moxa; and the ends of the hoop are grasped in the forceps, which are made tight on it by the screw with which they are furnished. The hoop should be applied about a line distant from that end of the moxa which is to be placed on the skin." 68.

The moxa should be applied, in painful affections, to the point where the greatest distress exists; and in paralytic diseases, over the origin of the nerves which lead to the morbid parts, and afterwards along the same nerves in different positions of their course. There is scarcely a part in the body to which it may not be applied in one form or other; even to the eye, in the form of the objective moxa, as has been often done by our author, with great advantage, in obstinate chronic opthalmia. But we must specially attend to the size of the moxa on every occasion, the manner as well as the length of its application, and these must be regulated by the depth of the disease, and the nature of the textures. It may be used so as not to cause any injury; in a greater degree, so as to produce vesication; and, in a still greater degree, an eschar, and the eschar may be either deep or superficial; or, finally, it may be employed with the acupuncture needle. These modes may be denominated the *first*, *second*, *third*, *fourth*, and *fifth* forms of application of the moxa. The *first* will answer when the disease is very superficial; it is the objective cautery of the French authors, and is deemed a powerful remedy for the cure of ulcers. It may be serviceable in neuralgia, where the nerve is superficially situated; or in affections of the joints, when the synovial membrane is, as in the knee and wrist, immediately under the integuments. The moxa should be repeated at least once a day, and applied by holding it, within the forceps, as close to the part as is endurable. The *second* is seldom used by Mr. Wallace, because less effectual than the *third*, and more troublesome eventually. It may, however, be beneficially employed in tic douloureux, and in parts on which a cicatrix would be objectionable. The moxa should be holden steadily, and as close as possible to the skin without touching, and until that skin becomes white from the detachment of the cuticle, and the formation of a blister. In a large proportion of cases, the superficial eschar, or *third* form, will be the best. To produce this eschar, the moxa must be placed on the skin, and kept there until that skin appears brown under it, and which will, in general, occur when the combustion has extended to the distance of a line from the spot. The *fourth*, or deep eschar, will be required when the disease is far from the sur-

face, as in affections of the spinal marrow and hip. To perfect this eschar, the moxa must remain until its combustion is complete, and then the part will be black, and the surrounding skin slightly red, and wrinkled. Here it will sometimes be useful to increase the intensity of the heat by the blow-pipe, and, previously, the moxa ought to be surrounded by a cylinder of card-paper. Moreover, the spot should be marked with a little circle of ink in which the moxa is placed; and in using the blow-pipe, the adjacent parts must be protected by a dry piece of paper, antecedently wet in a saturated solution of the sulphate of alum, or muriate of soda, having a hole in its centre for its moxa. These solutions diminish the combustibility of the paper, and render a spark from the blow-pipe powerless. In paralysis, some obstinate forms of sciatica, and analogous cases, the frequent repetition of the moxa will be demanded. When the eschars are thrown off, ulcers are formed: and, when numerous, considerable irritation is excited, and a weak habit may be injured by their discharge. In these instances of deep-seated disease, the moxa, in conjunction with the needle, which is the *fifth* mode of application, has an excellent effect.

"When the moxa and acupuncture needle are used together, I perforate a moxa of a proper size, by a needle of such a length as will be sufficient to reach the seat of disease, and at the same time extend so far beyond the surface of the skin, as to keep the moxa about one inch from it, so far as to secure the texture of the skin from injury. The needle is then introduced, as far as the seat of disease, by the assistance of the porte-aiguille; and as soon as it has been introduced, the porte-aiguille is removed, the needle being left in the part. The moxa, which had been previously perforated, should be now placed in a state of combustion on that end of the needle which projects beyond the surface of the skin, and allowed to burn round the needle by which it is thus transfixed. The heat disengaged from the moxa, is communicated to the needle, and thence conveyed to the seat of disease. When the needle has cooled it is removed, and the wound or eschar produced by it is scarcely observable." 71.

Immediately after the application of the moxa, Baron Larrey advises us to wet the skin with the water of ammonia for the express object of preventing inflammation:—the very effect which those that are ignorant of the true principle of the action of this agent, strive to accomplish. The aqua-ammoniæ succeeds in its purpose, and so do alcohol, æther, turpentine, ammonia, or even bruised garlic. In the first and last modes of employing the moxa no after treatment is needed. When eschars exist, they should be covered with adhesive plasters until they separate, which may be expected in eight, ten, and, occasionally, twenty days. The moxa acts more favourably when the eschar is thrown off very slowly. Superficial ulcers and excoriations may be washed once or twice daily with a solution of the nitrate of silver, or sulphate of copper, and covered adhesive plaster.

Our analysis now brings us to the adjuvants of the moxa, since like every other therapeutic agent, it is not above collateral aid. As those diseases, which are suited to the action of this remedy, consist in an atony, and often in an overloaded state of the absorbents and capillaries, the means, as adjuvants, may be placed under two divisions: 1st, Those that act by directly increasing the tone of the vessels, and consequently the rapidity of absorption and of capil-

lary circulation: and, 2dly, Those whose beneficial influence depend on their emptying the overloaded or distended capillaries. The former are denominated tonics; the latter evacuents. In general, the mineral are preferable to vegetable tonics, especially mercury, iron, arsenic, silver, and copper. The only useful vegetable ones are cinchona, guaiacum, and turpentine. The precise doses of tonic medicines deserve consideration, and in numerous instances they may be greatly increased, and the medicines themselves occasionally changed and alternated. Local, like general tonics, are, essentially, stimulants, and produce their influence on the functions of capillary circulation and absorption, by exciting a degree of increased action, which is favourable to the acquisition of power. Those that can co-operate with the moxa, act either directly on the immediate seat of disease, or influence it by their action on the skin over the affected part. To the first class belong acupuncture, and probably galvanism; and to the second, the alternate aspersion of hot and cold water, trebinthinate and ammoniacal liniments, with other cutaneous stimulants. The acupuncture certainly acts as a stimulant, but whether by its mechanical power, or the disengagement of a minute portion of galvanic fluid, is doubtful. The operation of the moxa and acupuncture has already been explained, and the latter may also be used in conjunction with galvanism. To excite the capillary vessels to increased contraction, no remedies are more effectual than turpentine, ammonia, ice, or hot and cold water. Among those means that act on the general surface of the skin, hot baths, fumigations, &c. should be mentioned, and both may be either simple or medicated. Of those which act on a limited portion of the skin, the *vapour douche*, dry cupping, the long continued application of irritating embrocations, liniments, &c. must not be forgotten; nor blisters, scarifications, leeches, and those remedies that produce artificial eruptions, although all the latter act both as evacuants and counter-irritants.

The utility of pressure in disease needs no illustration. Since the days of Hippocrates and Celsus, friction has been a practice, more or less generally adopted, to relieve parts in a state of debility, by mechanically assisting the too languid circulation of the fluids. Mr. Grosvenor, of Oxford, extended this practice considerably, but claims to originality he has none, as the reference to Celsus,* the mere echo of the words of Hippocrates, will decisively establish.

"Nor is this one art easily acquired by nurses of ordinary intelligence. If at any time I have occasion to increase the number of those rubbers, whom I keep in constant employment, I find that, with all the attention I can give to directions, my wishes are never carried into execution with accuracy. In fact, although it is a very mechanical process, it requires months of practice to render a person perfect in the art of of employing it. I am convinced that the principal cause of the neglect of friction among the moderns, arises from the difficulty of obtaining persons properly experienced in the art. The imperfect manner in which the operation is commonly performed struck me forcibly some years ago, when on a visit at Oxford, during the life of Mr. Grosvenor, I had an opportunity of observing the adroitness with which his rubbers used friction, and the steadiness with which they continued it for hours without any interruption. It was this visit which induced me to edu-

* De Medicina, Lib. II. sect. xiv. p. 76.

cate some poor persons in the art, and to keep them in my constant employment as rubbers." 93.

The bare hand, or the hand covered with a woollen glove, is the best instrument for friction. A small quantity of hair powder, or fine flour should be interposed between the skin and hand to prevent any chafing. Great advantage will be derived by causing a gentle stream of vapour to play upon the part while friction is applied.

The various mechanical operations which have been denominated massing, shampooing, thumbing, kneading, &c. &c. may be included under the term percussion, since each and all of them essentially consist in the application of a circumscribed, momentary, or transient pressure, frequently repeated; and produce their beneficial effects by compressing the vessels to such a degree, as to increase the rapidity of their circulation. They may, perhaps, also act by a stimulating agency. These practices, although little used here, are much in vogue elsewhere, and especially in Finland, Russia, Turkey, Egypt, India, China, and the South Sea Islands, where they are universal, although the manner differs in different places. The hand is the best and most commonly employed mean for performing these various processes. It may be used in different ways—as by gently pressing or kneading with the thumbs; or with the ends of the fingers; or with the closed hand; or by causing the hand, or points of the fingers, to be propelled with an impulse upon the part; or, lastly, by grasping alternately, with either hand, the limb affected, one hand being placed at either side, in such a way that each may meet and surround the limb. But in every mode, and in every instance, the operation should be conjoined, whenever practicable, with the exposure of the patient, during the process, to the influence of heated air or vapour.

"If practice be necessary to enable an attendant to perform friction with art, it is still more necessary in shampooing. But the nurse-tender, who has been instructed and who has acquired a knowledge of friction, soon becomes an expert shampooer. Indeed, shampooing and friction may, and should, almost always be combined. The following is the manner in which these processes are performed at the Skin Institution. The patient, previously undressed, enters the shampooing apartment, already heated to the temperature of about 110° Fahr.* He then reposes on a cane sofa, and a small quantity of aqueous vapour, impregnated by passing through some aromatic or odoriferous herbs, is allowed to enter the apartment. This vapour gradually diffuses itself, and distributes a delightful fragrance. The patient remains in this situation until the surface of the body becomes gently moist. The shampooer now enters, and first submits the entire body of the patient to that degree of friction which may be necessary to disengage all branny or furfuraceous deposit from the surface of the skin. The process of shampooing is then commenced; and the shampooer, by gently grasping, pressing, and kneading with the fingers, thumb, or entire hand, variously modified and employed, from the extreme parts to the trunk, in the line of direction of absorption and venous circulation, continues the process for a longer or shorter time, according to the nature of the disease, and the feelings of the patient, the percussion being occasionally interrupted for the purpose of extending, in a gentle manner, such parts as are in a state of rigidity. The whole process is then terminated by

* "For a description of the shampooing apartments at the Dublin Skin Infirmary, see my account of the apparatus, &c. &c. illustrated by many plates. In 4to.

gently cleansing and drying the entire surface with a soft towel. The patient then withdraws into an adjoining apartment, the temperature of which is not inferior, when he enters it, to that of the shampooing room; but after he has reclined for some time on a bed or sofa, or after he has got himself dressed, the heat of this second room is gradually lowered to that of the external atmosphere, by a particular contrivance, but in so slow a manner, that no vicissitude whatever is experienced by the feelings of the patient. The beneficial consequences which always result from the process of shampooing, when properly employed, and in appropriate cases, are most striking. I have often known patients sink into a slumber, and enjoy several hours of delightful tranquillity after the operation, who had scarcely slept for weeks before; and I have known patients who were scarcely able to move a limb on entering the apartment, and who were consequently carried into it, able to walk out erect, and with steadiness. Again, on the other hand, I have found a single operation produce feverish symptoms, and a restless night, when employed contrary to my wishes. The principles which have been laid down fully explain these opposite results. In fact, if those remedies, which are calculated to excite tone, be employed in the state of increased action, they will uniformly increase the disease, and aggravate every symptom, while the same cases will be benefitted by opposite measures." 96.

It may be further observed, that if remedies, which are adequate to diminish action, be persisted in beyond a proper time, they will render the disease more malignant in its nature, and more difficult of cure. "That disease," remarks Mr. John Bell,* "which, with but a little indulgence, a very little encouragement of fomentations, poultices, bleeding, and low diet, would end in white swelling of the knee, may be stopped even by so simple a matter as a well-rolled bandage."

The work concludes with an account of thirty cases, which occurred in the private and hospital practice of Mr. Wallace, and were cured by different applications of the moxa. These cases may be briefly enumerated:—Nine of sciatica, and painful affections of the nerves; seven of lumbago, and other painful disorders of the muscles; eleven of paraplegia, and other paralytic affections; and three of epileptic, or spasmodic. Presuming, as we do most sincerely, on the accuracy and veracity of the reporter, and taking into consideration, as we ought to do, the unbiassed testimonies of other surgeons, we cannot help thinking that the efficacy of the moxa, as a therapeutic agent, in certain forms of disease, is incontestably established. A plate is annexed, which represents the porte-aiguille, the instrument for the application of evaporating lotions; the moxa forceps, with a moxa, surrounded by a bit of flat silver wire; a scarificator, of the form used by Baron Larrey; a blow-pipe, and a glass tube.

We recommend this work to every practitioner who is, and surely all are, anxious to alleviate human suffering, and desirous to understand the various modes of applying the moxa, and the true principles on which it is supposed to act. The author is an active and ingenious surgeon; he has had opportunities, and he has not neglected them: like every man that reasons, he is sometimes right and sometimes wrong; yet his facts are valuable. He is already favourably known to the profession; and if our approbation can impart pleasure, it is bestowed willingly, because deservedly.

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* Principles of Surgery, vol. i. p. 127.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING

The Spirit of the Medical Journals,

Foreign and Domestic

WITH COMMENTARIES.

PART I.

"Ore trahit quodcunque potest, atque addit acervo."

I. ON INTERMITTENT IRRITATIONS. BY M. DUFAU.*

THE disciples of Broussais have very ingeniously availed themselves of the phenomena of irritation, to show that inflammation itself may be of an intermittent character, and thus to support the doctrine of ague being, like all other fevers, dependent on local inflammation, the latter of a periodical type. Without being entire converts to the doctrine of either Broussais or Clutterbuck respecting fever, we may allow, what, indeed, common observation shows, that irritation, with or without the phenomena of phlogosis, very often assumes a periodical character; and on this account we shall dedicate a few pages to the paper of M. Dufau, which contains many interesting cases.

He first (and very properly) tells us what he means by the term irritation. Our organs answer to the impressions made on them by external agents, in virtue of a property which we term *excitability*. When this excitability is in a due and healthy degree of exercise, we call it *excitation;* but when raised beyond that point by a too powerful stimulation, it constitutes *irritation*. This we consider to be a simple and correct definition of irritation.

This state presents different phenomena, according to the organic element in which it predominates. Confined to the nervous structure, it causes *pain*, more or less acute, and then receives the name of neurosis, or, more properly, neuralgia. When the irritation extends to the sanguiferous capillaries, and is accompanied by the phenomena of heat, redness, and swelling, we call it *inflammation*. It takes the denomination of *hæmorrhagic* irritation, if the sanguiferous capillaries give way, and pour out their contents. Finally, it is termed *lymphatic* irritation, or *sub-inflammation*, when it predom-

* Journal Général de Médecine.

inates in the lymphatic series of vessels, and is accompanied by an afflux of serous fluids to the part, with slight or no pain, and without redness or heat.

"Observe," says our author, "attentively an external part of the body when invaded by inflammation. Pain is the first symptom—then redness, heat, and swelling succeed. What are we to infer from this train of phenomena? Why, that the stimulant, or exciting cause, first acted on the nervous system of the part, and afterwards invaded the other textures, causing a fluxionary movement to that point. The hæmorrhagic irritation is only a modification of the sanguineous irritation."

This distinction between irritation confined to the nervous structure and that which is extended to the sanguiferous vessels, is founded in observation and confirmed by practice. The treament of nervous irritation is very different from that which we employ in the sanguineous—and the lymphatic irritation requires a treatment different from both the others. These three modes of irritation present different phenomena, according to the organs or structures in which the irritation is seated. After this slight exposé, our author proceeds to the facts by which he illustrates the subject of *intermittent irritation.*"

Case 1. M. D. became affected, in January 1825, with a violent pain in the right temple, which recurred every second day. The pain was very circumscribed, and was greatly exasperated by any noise, and even by the impression of light. Neither heat, redness, or swelling of the part could be perceived, nor was there the slightest febrile movement in the system. The paroxysms lasted five or six hours, and terminated by a copious perspiration from the head. In the intervals, the health was excellent. Twelve grains of sulphate of quinine, administered in a lavement, completely stopped the paroxysms. This may be considered a specimen of nervous intermittent irritation, characterised by pain alone, and without any fluxionary movement in the vessels.

Case 2. A gentleman of acute nervous susceptibility, and very subject to irritation of the stomach and bowels, was seized in the night of the 16th August, with violent colicky pains, and vomiting and purging of glairy mucous matters, mixed with some blood. These symptoms continuing the next morning, fifteen leeches were applied to the anus, and the patient confined to very rigid regimen. About midday the symptoms ceased. 18th. He remained well, and took food. In the night of the 18th, the symptoms returned, as on the night of the 16th, accompanied by burning heat about the anus. The pulse was slightly accelerated—the tongue natural. The return of the symptoms was attributed to the food he had taken, and twenty leeches were applied to the anus. Food was prohibited. All the symptoms ceased at 12 o'clock on the 19th. From this time till midnight of the 20th he was perfectly well, but abstained rigorously from all solid food. At midnight, the symptoms returned as violent as ever, and now M. Dufau recognized a tertian colitis, the

pain occupying the region of the transverse colon in particular. This time, fifteen leeches were applied, and no subsequent paroxysm ensued.

It may be remarked, that this complaint occurred at a time when dysentery prevailed in the town where M. Dufau resided, (Mont de Marsan,) and therefore he could not consider the disease as any thing more than a modification of dysentery—that is, an intermittent dysentery. He offers it as an example of periodical colitis—or intermittent inflammation of the mucous membrane of the colon.

Case 3. Our author was called to a labouring man on the 13th of August, who had been ill six days, but of whose history he could obtain little information. The patient was free from fever, but had a continual call to stool, voiding only glairy mucus mixed with blood. He ordered a rice ptisan, a dose of cream of tartar—and at night a slight opiate, with aromatics. Next morning our author found the patient quite well, and complimented himself on the success of his prescription. But in the evening of the 15th he was sent for in great haste, as his patient was reported to be dying. He found him scarcely alive, being nearly insensible, his countenance cadaverous, his extremities cold and covered with frigid perspiration, the pulse scarcely perceptible, and the patient passing much black blood, with constant straining at stool. An opiate was administered, and directions given to commence the cinchona as soon as the symptoms were mitigated. The paroxysm terminated in a few hours—and an ounce and a half of bark was exhibited, at short intervals. No paroxysm returned, and the patient continued well.

Our author concludes from the symptoms, that the disease was dysentery of the intermittent type, and the cure by cinchona, he thinks confirms this conclusion.

Case 4. *Periodical Peritonitis.* A young man, 24 years of age, was carried to the Hospital of Mont de Marsan, on the 4th of April, 1824, and found by our author, presenting the following symptoms: —acute pain over the whole abdomen, which was hot, tense, distended, (météorisé,) and exceedingly tender on pressure. He frequently vomited yellow and bitter matters. The tongue was moist, and of natural colour—thirst moderate—head-ache—countenance shrunk—breathing quick—skin burning hot and dry—pulse hard, sharp, and quick. The complaint had commenced the preceding evening, and was ushered in by a rigor. Our author recognized in these phenomena a case of peritonitis. Fourteen ounces of blood were taken from the arm—starvation enjoined—diluent drinks—emollient fomentations—lavements. At the evening visit, our author was not a little surprised to find his patient completely free from every one of the symptoms above-described. They had disappeared on the occurrence of a copious perspiration. The next day (5th April) the patient continued free from complaint, and some very light aliment was permitted. In the morning visit of the 6th, our author found his patient labouring under precisely the same symptoms as those described on the 4th, when he entered the hos-

pital, and ushered in, as before, by a strong rigor. M. Dufau was at a loss to know whether he had an intermittent inflammation, or a relapse of continued peritonitis to treat. He applied 25 leeches to the abdomen. In the evening, a complete intermission took place, after a copious perspiration. 7th. The patient was in good health, and craved for food, which was granted to him. In the night of this day, the symptoms returned, but in so mitigated a form, that our author did not deem it necessary to prescribe either depletion or the bark. The paroxysms did not return till the 20th day, when, after some excesses in diet, the phenomena first described occurred. Only abstinence and fomentations to the abdomen were ordered. The succeeding day (28th April) was apyrectic, but on the 29th a most tremendous paroxysm came on, attended with all the symptoms of violent peritonitis. Wishing to determine whether the bark would be as successful in stopping the paroxysms now, as depletion and starvation had been before, M. Dufau prescribed the sulphate of quinine. No paroxysm afterwards occurred, and the patient was discharged from the hospital cured.

M. Dufau remarks that this case requires no comment. But we would just observe, that it does not appear quite determined whether the local symptoms of peritonitis were the cause of the general disturbance of the system, or merely an accompaniment. We have seen many cases where the hot stage of an intermittent presented phenomena in the head, the chest, and the abdomen, bearing all the marks of inflammation in those parts for the time being and vanishing at the termination of the paroxysm. But these *local* phenomena we attributed to the general excitement taking a run, as it were, upon some organ or part that had been more predisposed to disorder than other organs and parts. We may have been wrong, however, and it is for more minute investigation to determine whether these local inflammations (if they be really inflammations, and not mere irritations, or excessive degrees of excitement) are the causes, the accompaniments, or the consequences of the general pyrectic commotion in the system. We are much more anxious to discover the truth than to support any doctrine to which we may have been attached by early prejudice or subsequent observation.

Case 5. J. Bouillet, aged four years, of feeble constitution, large head, and precocious intellect, became dull, pallid, and drowsy, on the 20th May, 1823. Some slight convulsive movements were observed in the muscles of the face on that day, but the pulse was not disturbed, nor the temperature of the skin increased. Our author conceived that, in these symptoms, he recognized a slight *cerebral irritation*, which had not yet excited any sympathetic affections of other systems or organs. A pediluvium was advised, and, in the evening, the child appeared quite well. The night was good, but towards 12 o'clock next day, the boy became suddenly pale, cold, and complained of lancinating pains at the crown of the head, succeeded by inclination to vomit. After this, he suddenly became insensible, and his eyes and face were agitated with convulsive movements. The face got very red—the head excessively hot, as also

the surface of the body—the pulse could not be properly estimated. These symptoms are often attributed to the irritation of worms in the intestines, and M. Dufau does not contend that this is not very frequently the case; but he rightly believes that, wherever the irritation may commence, it has affected the brain sympathetically, when the symptoms above-mentioned have taken place. In the present case, he looked upon the cerebral irritation as primitive or idiopathic, from the largeness of head, precocity of intellect, nervous susceptibility, and absence of all signs of abdominal affection. Fifteen leeches were therefore applied to the temples—cold applications were made to the head—and a warm bath to the inferior half of the body. Under these means the convulsive motions ceased—the boy recovered his senses, but continued to complain of pain in the top of his head—skin hot—pulse hard and very quick—and there was still some subsultus tendinum. Towards the evening an abundant perspiration broke out, and all the febrile and other phenomena quickly vanished. After an interval of health, the same symptoms again returned, and there was no longer any doubt that the disease was of a periodical character. It was put down by our author as "*intermittent arachnitis.*" The sulphate of quinine was now administered, and the disease returned no more.

When we recollect that the *arachnitis* of our author means an *irritation* extended from the nerves to the vessels of the part—that this irritation is intermittent—and that it is cured by tonics, we need not entertain so much repugnance to the term "*intermittent arachnitis.*" The fact is, that it is—it must be, different in its nature, from common or continued inflammation, because it is attended by different phenomena, and requires a different treatment. In short, it bears the same analogy to common inflammation that an ague does to a continued fever.

Case 6. Augusta Lestage, aged 26 months, with large head, and florid complexion, was seized on the 1st of May, 1823, with shivering, succeeded by intense heat, thirst, &c. The tongue was red—nausea, vomiting, diarrhœa—abdominal distention. Leeches to the abdomen and fomentations, our author having recognized an inflammatory irritation of the digestive tube and peritoneum. The leeches were not applied as he had directed; but a copious perspiration having taken place in the evening, the symptoms vanished. 2d May. Passed without any fever. 3d May. An accession of fever with the same symptoms as before described. In two hours after the accession, a new order of phenomena was developed. The little patient suddenly became insensible, and all the muscles of the body were agitated with convulsions. The face became highly coloured—the neck red and swelled—mouth ejecting foam, &c. Our author now saw that there was an extension of the inflammatory irritation to the brain. Fourteen large leeches were applied to the epigastrium, and afterwards the lower half of the body was put into the warm bath, the head being kept cool by icy applications. The symptoms soon subsided, an abundant perspiration having broken out. 4th

May. Passed without any bad symptom. 5th. A new accession of the fever, the cerebral affection being still more intense than before. The same means were employed as on the 3d, with the addition of leeches behind the ears. At six o'clock in the afternoon an intermission took place. Convinced that the antiphlogistic measures were not sufficient to quell the disease, the sulphate of quinine was administered during the succeeding apyrexia, and no more accessions took place.

Case 7. Celestine Caupenne, aged six years, was seized in the night of August 24th, with alarming symptoms, and our author was summoned. He found the little girl insensible, and violently convulsed—head burning hot—countenance greatly flushed—eyes fixed—skin arid—pulse hard and quick. She had gone to bed in perfect health. Our author could not but consider these symptoms as the signals of cerebro-spinal irritation. The child had been exposed on the preceding day to an intense sun, and there was no indication of any gastric affection. Twelve leeches were applied to the base of the skull, while cold lotions were kept on the top of the head, and warm fomentations to the feet. The leeches fell off; but the convulsions continued. The little patient was therefore put into the warm bath, a small stream of cold water was poured on the head. The convulsions gradually subsided. The child was carried to bed, and a perspiration broke out. The fever ceased entirely. The 25th was passed in good health; but at 2 o'clock the next morning she was seized with the same symptoms as before, and equally intense. The same means were repeated, and the same termination of the paroxysm occurred. The intermittent character of the disease being now unequivocally established, the bark was given in lavements, and the paroxysms stopped.

Our author could bring forward a great number of cases of intermittent gastritis and enteritis, of various types, cured during the year 1823, with great facility, by one or two applications of leeches —occasionally a general bleeding, and strict antiphlogistic regimen. He ought to have added, however, what indeed the foregoing cases shew, that the quinine still more certainly stopped the paroxysms than the depletion. At the same time we cannot but approve the the plan of previous local bleeding, even in these intermittent irritations, where one particular organ or texture is more threatened than others.

Dr. Dufau observes, that he was one of the earliest disciples of Broussais, and still adheres to that part of his master's doctrine which assigns a local inflammation as the cause of what are called idiopathic or essential fevers. But he, for a long time, relinquished Broussais' doctrine respecting intermittent fevers, not being able to form an idea of an "*intermittent inflammatory irritation.*" A more close observation of facts has induced him to alter his opinions, and come to the conclusion that idiopathic and intermittent fevers are essentially of the same nature—"produced often by the same causes —cured often by the same means—and occasionally convertible into each other." Why the same causes should at one time produce a

continued, and at another, an intermittent fever, our author acknowledges his ignorance. Be it so; but we find fault with M. Dufau, for saying these fevers are cured by the same means. On the contrary, they generally require different modes of treatment—shewing, in our humble opinion, that the *intermittent* inflammatory irritation is different in its nature from *continued* inflammation. Our author, however, diverges so far from the doctrine of his master, as to allow that the *irritation* is not always in the stomach and bowels, though very often so. It may be in the brain, chest, or organs of the abdomen. But the fact is, that, in a majority of intermittent, and still more of continued fevers, the inflammatory irritation is so equally divided, during the paroxysm, among the great organs of the body, that it is utterly impossible to say which is the particular, or even the principal seat of the irritation. And when it does manifest itself more in one organ than another, we have no certain proof that it is the *cause* of the paroxysm in one class, or the continued excitement in the other class of fevers. There is just as much reason to conclude that its predominance in a particular organ is owing to previous predisposition in that organ, in consequence of which it suffers more than the rest *during* the general excitement which is raised in the hot fit of the ague, or the course of the continued fever.

The following are the conclusions to which M. Dufau has come, from the facts detailed, and many others which he has witnessed.

1mo. That there is such a thing as an intermittent irritation.

2ndo. That all, or almost all, the organs of the body are susceptible of this irritation.

3tio. That this irritation may be of a febrile or apyrectic nature —that is to say, it may or may not be accompanied by sympathetic symptoms.

4to. That intermittent fevers are probably febrile intermittent irritations.

5to. That the phenomena of these fevers may be produced by intermittent irritation of any or all of the organs of the body.

We acknowledge that the doctrine of our author is ingenious, and that it is much more tenable than that of either Broussais or Clutterbuck. We believe, too, that its adoption would not be very dangerous in practice; because, while it leads to gentle and antiphlogistic measures in continued fever—and particularly to local depletion when any organ is threatened, it excludes not tonics, and especially the bark, arsenic, &c. where the fever is of an intermittent type. It is decidedly a much safer theory than that of Brown, or even of Cullen; but we do not see that it possesses much, if any, superiority over the eclectic doctrine, which regards fever as a general disease, often showing determinations to particular organs, in which determinations consists the principal danger—and to guard against which the practitioner should be ever on the watch in order to obviate the local inflammation by local or general depletion.

2. PHLEGMATIA DOLENS.

Dissection alone will not prove the pathology of a disease. It requires the evidence of symptoms during life, and also the light which treatment may be enabled to throw on the matter. In respect to phlegmatia dolens, it is certain that not one case in twenty proves fatal. If therefore, every twentieth case shewed, on dissection, inflammation of the inguinal vein, the cause of the original swelling of the limb would not thereby be proved to be phlebitis. In *fatal* cases, there may be this organic lesion found, and yet, in favourable cases, it may not have existed. One unequivocal case of phlegmatia dolens showing the vessels of the groin *unaffected*, ruins the theory if supported by 20 cases in the affirmative. The following authentic instance has been put on record by Mr. Fraser, Surgeon of the Civil Hospital at Gibraltar, in the January Number of the Ed. Journal.

Case. A. M. 25 years of age, a stout woman, was admitted into the hospital on the 7th January, 1826, eight days after a confinement, having her left leg, from the toes to the groin, swollen to twice its natural size; and conveying to the touch—"an elastic, doughy, œdematous feel, but with no serous infiltration, as the parts do not pit on pressure." The tumefaction extended up along the same side, to the mamma and even to the axilla. The febrile symptoms ran high, and took on a typhoid character. We need not detail the treatment, which was judicious; but as the mamma sloughed, she was in considerable danger for some days, and then rallied and promised to do well. On the 15th January, however, there came on symptoms of thoracic inflammation, under which she sank on the 17th of the same month, ten days after admission into hospital. We shall pass over all parts of the dissection, except that which bears on the subject under discussion. All the abdominal viscera were sound except the uterus, which exhibited marks of inflammation, the vessels being large, and the organ itself the size of a pine-apple.

"On prosecuting the dissection, a chain of inflamed glands, from the size of a pea to that of a filbert, was seen extending from the distal point of the left iliac artery, amidst the cellular substance surrounding the sheath of the vessels, atlantad to the diaphragm, all as red as scarlet, and many purulent. The cellular substance around the the iliac portion of artery also exhibited serous infiltration. The coats of the artery, with its vein, as well as the aorta, and *vena cava descendens*, were examined, but, upon slitting them up, not a trace of morbid action could be discovered. An incision was now made inside of the thigh down to the knee; the cellular substance was of the depth of two inches at the upper part, and infiltrated, as in the arm, but no serous exudation took place. Inflamed glands of the same description as related, skirted along the femoral sheath, from the groin to the popliteal space. In the groin three or four were seen as large as a pigeon's egg. The blood-vessels, as in the abdomen, were healthy. An incision was also made into the

right, or sound thigh, and the contrast between the healthy and the diseased was remarkable. The lips of the vagina were much swollen." 18.

That this was a genuine case of phlegmatia dolens, there can be no reasonable doubt; and that it disproves the proximate cause which Dr. Davies has contended for, we think must be admitted. We have all along contended that, in plegmatia dolens, there is no one structure peculiarly affected as the invariable origin of the disease. We think it very probable, however, that when the veins of the groin happen to become affected in the course of the disease, the danger is then much greater, and death more likely to result. In such cases, Dr. Davies' doctrine would appear to be supported, if not proved. But the numerous recoveries, without any particular treatment—and such cases as that brought forward by Mr. Fraser, disprove the exclusive pathology of inflammation of the veins being the primary cause of the disease.

The opinion of Dr. Hull, that the disease consists in a "peculiar inflammation seated in the muscles, cellular membrane, and inferior surface of the skin," appears to be as near the mark as any that has yet been offered.

3. EXAMINATION, POST MORTEM, OF TALMA.

Great contrariety of opinion existed among the medical attendants of Talma, respecting the nature of the disease which terminated this great actor's life. The partisans of Broussais maintained that he was affected with chronic "gastro-enterite"—while the others considered the enlargement of the abdomen, the nausea and vomiting, the great tenderness as well as tension of the parts, the obstinate constipation, &c. as more probably dependent on an organic obstruction to the free course of fæcal matters, and therefore predicted a fatal termination of the disease. Dissection proved the justice of this last opinion. There were present at the dissection (which was performed by M. Breschet) Messrs. Biett, Dupuytren, Fouquier, Broussais, and several others. Six inches from the termination of the rectum, there was found a stricture, and, in fact, a complete obliteration of the intestine. Above this stricture, the rectum and colon were prodigiously distended, and in some places sphacelated and perforated, so as to give exit to stercoraceous matters into the cavity of the pelvis. The whole line of the intestinal canal was greatly distended with gas and fæcal matters. Traces of inflammation were found, of course, in various parts of the intestines, and were evidently the consequences of the retention of fæces. The stricture in the rectum was probably of long standing; for Talma had experienced, for years past, a difficulty in evacuating the bowels. He would frequently go in great haste to the water-closet, thinking there was a copious motion to come away, and yet, when the attempt was made, nothing but air, or a small quantity of liquid fæces would escape.

There was another morbid appearance, on dissection, which is worthy of notice. At the apex of the heart there was a small

aneurismal tumour or pouch, filled with concentric layers of fibrin, situated in the left ventricle, the parietes of which had grown remarkably thin at that part. It was about the size of a pigeon's egg. No symptom during life led to the suspicion of such a disease going on in the heart. But it was remembered that, one evening, after having enacted the part of Orestes in the play of Andromache, Talma felt himself strangely agitated, restless, and anxious for some time, which symptoms gradually subsided. But it is supposed that the internal membrane of the ventricle then gave way, and that the expedient of nature to fortify the part, by the deposition of coagulable lymph, was only a temporary or palliative cure.

About the time of Talma's death, the late General Kyd, of Albemarle-street, aged 73, died suddenly, without having evinced any symptom of disease of the heart during life. He was examined by Dr. Johnson and Mr. Hicks, who attended him for some years past, and precisely the same aneurismal pouch jutting from the left ventricle, as that described in Talma's case, was found. It was situated, however, near the base of the ventricle, at no great distance from the origin of the aorta. In the General's case, the centre of the aneurismal dilatation had given way, while the patient was asleep, and about eight ounces of blood were extravasated into the pericardium. The general had eaten a hearty dinner, and went to sleep, from which he never awoke. This excellent and universally respected officer had led a very active early life in India, whence he retired more than 20 years ago, to enjoy an age of ease, after a youth of labour. But soon after his return to Europe, he became hypochondriacal, and the malady increased as age advanced. For the last ten years of his life, he presented one of the most exquisite, though melancholy instances of this mysterious complaint that has perhaps ever been witnessed. Without exhibiting any mark of local or general disease that was at all tangible, he became convinced that he was dying—or at least that he had but a few days or even hours to live. This too, at a time when he ate and drank heartily, and when all the secretions and excretions were healthy. He invariably, however, complained of an intense pain extending from the rectum, up along the line of the colon, and indeed along the small intestines, to the stomach. He never admitted that he was a moment free from this pain, though he would forget it sometimes for hours, when engaged in conversation with his friends. Whenever he recollected himself he reverted to the perennial source of his misery. It was discovered, some four or five years ago, that he had a small stone in the bladder, and it was now hoped that a key to this mysterious pain was found out. Sir Astley Cooper quickly removed the stone, but as soon as the wound was healed the malady returned as bad as ever. For a considerable period before his death, the patient was almost invariably better and worse on alternate days. During the bad day, he would eat and drink very little, asserting that he was dying:—next day he would be better, and then he would eat and drink heartily—and so he went on. It is natural to suppose that the medical attendants were anxious to ascertain what was the state of the intestinal canal, in

which the patient had complained of such intense pain for so many years. The body was examined with the greatest care, and not a vestage of disease could be detected in any part of the alimentary passage, inside or out. The brain was also carefully dissected, but nothing unusual was observed. The aneurismal pouch of the left ventricle of the heart was the only deviation from apparently healthy structure in the whole body, and there can be little doubt that this was of comparatively recent date, and that it could have had nothing to do with the hypochondriacism of twenty years' duration, and with the feeling of agonizing pain in the intestines for more than ten years.

Here there was a neurosis of many years duration leaving no cognizable trace of disease after death. The sense of pain in the intestinal canal, however it might have been exaggerated by the patient, cannot be supposed to have had no existence. On the contrary, there is every reason to believe that the *unnatural sensibility* of the first passages was the cause of the hypochondriacism as well as of the pain in those parts. This supposition is strengthened by the fact, that the patient was always worse after free living, and always better after the day of abstinence.

General Kyd was a man of vigorous mind as well as body, and before he retired from active life, was of a remarkably cheerful disposition, fond of music, and every rational enjoyment, and yet temperate in the luxuries of the table. The sudden change to retirement soon began to show itself in hypochondriacal feelings, and the patient endeavoured to amuse the mind by rambling over the classic scenes of Italy and Greece. But in this tour he did not pay so much attention to the physique as to the morale. He did not sufficiently exercise the body in proportion to his indulgence of the imagination in surveying antiquities, pictures, statues, &c. and the consequence was that he returned nearly as bad as when he commenced his tour. The due equilibrium between mental and corporeal exercise was not maintained, and little or no good resulted. The case altogether was a very instructive one for those who study the phenomena of hypochondriasis, and the multiplicity of features which it assumes in different individuals.

Before closing this short article, we may be permitted to express our surprise that the nature of Talma's disease was not more early discovered. A stricture within six inches of the anus was surely no very difficult matter to ascertain; and from the post-mortem examination there is every reason to believe that a timely use of the bougie would have prevented the obliteration of the canal, and consequently the death of the patient from that cause. Had the stricture of the rectum been discovered in time, and its closure prevented, it is highly probable that Talma, like Moliere and Palmer, would have expired on the *theatre* of his renown. This would have been a much easier death than that to which he was doomed by the terrible malady in question, and much more in consonance with the life of this great tragedian.

4. VIPER-BITE.*

Case. Tourfant, an herballist, aged 45 years, who had been occasionally attacked with epileptic fits, at long intervals, was bitten by a viper, on the 17th of May, 1826, at half-past 5 in the morning. The reptile was presented to him for sale by a peasant of Fontainbleau; and the wound was inflicted between two of the metacarpal bones of the right hand. There was another smaller wound near the former, but of uncertain nature. The animal bit another man a short time afterwards; but on applying some oil and sal-ammoniac no bad consequences ensued. At 7 o'clock, Tourfant's hand swelled and became painful, and at 8 M. Piorry and M. Solon saw the patient. The wound was extremely small—the integuments of the hand enormously swelled, but not very painful—skin of the member pale, with a slightly violet tint, menacing immediate gangrene. The temperature of the parts was considerably below par. The man vomited, from time to time, some mucous and billious matters—and passed by stool some motions of a peculiarly fetid odour—pulsations of the heart extremely feeble—those of the carotids could not be felt, nor those of the radial. The crural arteries, on the contrary, pulsated strongly. The upper extremities and the head were of an icy coldness, whilst the abdomen and lower extremities were preternaturally warm. The face was nearly as much swollen as the hands —the lower lip livid, and the neck in a similar state with the face. The patient still preserved his intellects, but was dreadfully depressed in spirits, being scarcely able to speak. There was no spasmodic or convulsive movement in any part of the body.

An incision, three lines in length, was made into each wound, and a cupping glass, with a pump applied. No blood, but only a serous fluid, was drawn out. With this fluid a young cat was inoculated, but no bad consequences resulted. The cupping-glass was kept applied for more than half an hour, during which, some spoonfuls of serosity were discharged. Warm fomentations were applied to the lower extremities, and the arms and region of the heart were chafed with warm frictions. Diluent drinks only were exhibited. In half an hour the patient spoke stronger—the infiltration of the face had subsided a little. At nine o'clock the medical attendants again returned to the patient, and found the symptoms somewhat ameliorated. The pulsations of the radial and carotid arteries were still imperceptible. The cupping-glass was re-applied, and a considerable quantity of serous fluid extracted. In the course of the day, the tumefaction of the face and upper extremities abated much —the action of the heart became more developed—the nausea disappeared, and the pulsation of the carotids and radials again became tangible. In the evening, the face was void of swelling—the glands in the axilla were swelled and painful—and an erysipelatous blush extended along the arm in the course of the lymphatic vessels. The action of the heart and arteries was now strongly developed. 18th. All the constitutional symptoms had disappeared: but still the arm

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M. Piorrey. Revue Med. Octobre, 1826.

was double its natural size, very red and very painful on pressure. The whole member now appeared to be the seat of a vast phlegmonous erysipelas. Twenty leeches were applied, followed by poultices. The diet was rigorous. In the evening the symptoms had much abated. From this time every thing went on well till the evening of the 20th, when much mental agitation occurred, and next day the patient was delirious, without fever. Something of this kind had formerly been observed for some days after each attack of epilepsy; but no fit had occurred this time. 22d. The cerebral commotion became subdued, and the patient continued to do well. Several medical practitioners had seen the patient during the treatment.

The above case appears to our author to justify the conclusion, that the cupping-glass is of essential service in poisoned wounds; and it is, we believe, the first instance where this remedy was solely trusted to in the human subject, at least in modern times. Our author pays a well-merited tribute of applause to the exertions and genius of Dr. Barry, in recalling this ancient practice, which had slept in oblivion so many centuries. We were not aware that the cupping-glass had been used so late as the present century. It appears from M. Piorry, that in a dissertation, by M. Blot, (date not mentioned) two cases of viper-bites were treated by M. Guyon by scarifications, cupping-glasses, and cauterization. Both were cured. In the New Journal of Medicine, for 1820, we find a case recorded by M. Richard, where a cupping-glass was applied over a poisoned wound, but did not arrest the progress of the virus. The particulars of the application, however, are not satisfactorily detailed.

M. Piorry enters into a long discussion on the mode of action of the viper poison, and whether it is to be considered as exerting its influence through the medium of the nerves or the blood. He comes to the general conclusion, now almost exclusively adopted, that the poison is absorbed, and does not act through the medium of the nerves. M. Piorry next takes up the subject of atmospheric pressure as the *sole cause* of the venous circulation—"La cause *exclusive* de la circulation veineuse"—and decides in the negative. It is astonishing what a propensity there is in human nature to misinterpret the plainest proposition. Indeed, we might almost lay it down as an axiom, especially in medicine, that no man will be rightly understood, even if he were to say that two and two make four. On both sides of the Channel, Dr. Barry is understood by nineteen in twenty, as maintaining that atmospheric pressure is the sole cause of the motion of the blood in the veins. Yet that gentleman not only does not maintain any such thing, but does not even place the agency in question as the principal of many causes which tend to the same end and object. In his work he distinctly makes the *vis à tergo* occupy the *first* rank, and places the suction influence (or, more correctly speaking, atmospheric pressure) in the *second* rank. M. Piorry, therefore, like many of his brethren, has set up a man of straw, which he very triumphantly knocks down, and thinks himself very clever in so doing.

As M. Piorry, however, allows that atmospheric pressure is

one of the agents in the venous circulation, Dr. Barry's theory stands exactly where it was. M. Piorry grants that this agency is secondary—" cette influence est secondaire." Dr. Barry does the same. The plus or minus of this agency will never, perhaps, be precisely ascertained. It is sufficient that it is acknowledged to exist.

5. BISCHE—A MALIGNANT DYSENTERY OF TRINIDAD.*

The first case which Dr. O'Connor met with, of this stange and dire disease, was in the person of a young Indian (Mœlissa) girl, ten years of age. She had then been three days ill. During the first two days, she had suffered from violent and constant irritation of the stomach and dysentery. She was under medical treatment, when, " fortunately," an old experienced nurse was called in, and quickly recognized the nature of the disease, and prescribed the specific remedy—strong lemonade for drink, and suppositories of limes, soot, and some other ingredients of no material efficacy. This treatment had been commenced four hours before our author saw the patient, and the symptoms were said to be much mitigated. Her then condition was as follows :—pulse scarcely perceptible—skin cold and clammy—vital powers apparently fast sinking—sphincter ani so relaxed, that a suppository, the size of an egg, was easily introduced. Our author had not the slightest hope of recovery; but not so the nurse. He, therefore, patiently waited the result of the vegetable-acid treatment. To his astonishment the female recovered, though the convalescence was tedious. Our author then made inquiries respecting the nature of the disease; but could gain little other information than that it was a flux, which invariably proved fatal, unless abundance of lemon juice was used, both by the mouth and per anum.

Dr. O'Conner had no good opportunity of seeing the disease again till the year 1823. On the 24th July he was summoned to the relief of a negro, a robust man of good constitution, about 26 years of age. He had been two days ill, and entered the hospital of Belle Plaine Establishment that morning. Our author had seen him on the 22nd, being then in good health, and was quite astonished to perceive the immense emaciation that had taken place in two days. The man was greatly depressed in spirits, and seemed confident that the disease would terminate fatally, as he had neglected the BISCHE, and nothing now could save him. His pulse was 136, and scarcely perceptible, skin cold, and covered with clammy perspiration, countenance dejected, alvine and urinary excretions passing away involuntarily and frequently, the former mixed with blood and mucus. On examination the sphincter ani was found completely relaxed, and he could compare the anus

* Medical Observations on a Disease known in the Island of Trinidad, by the name of BISCHE, or Biecho. By I. L. O'Connor, M D. Assistant-surgeon, Royal Artillery. [Analyzed from a MS. account forwarded to the Editor.]

to nothing else than the sunken eye of a dead animal in an advanced degree of putrefaction. The suppository of lime-juice had been freely used during the preceding twelve hours, without any effect, and the disease was rapidly advancing, the poor man suffering excruciating pain. Our author ordered him half a grain of opium and seven of calomel every four hours, with injections of arrow-root and laudanum, after which, lime-juice suppositories were to be introduced. Brandy punch for common drink. 25th. Passed a restless night—suffers excruciating pain in the rectum. Has taken 35 grains of calomel and three of opium, besides half an ounce of laudanum in glyster. He refused to take any more medicine, and requested to have a Spanish nurse, in which he was indulged. She gave him lime juice and some other unimportant things. 26th. The anus has sloughed, and the sphincter is partly destroy. The nurse had passed more than a pint of lime-juice up the rectum, with as much facility as into a funnel. 27th. Is sinking rapidly, and prays for death. From the scrotum to the os coccyges there is only one foul sore, like the face of an ill-conditioned stump after amputation! One could see several inches up into the cavity of the abdomen. Opium gave no relief, and the wretched sufferer was always exclaiming—"I am eaten up by the Bische; and he is so hungry, that "he never stops, day or night; and when he stops, he and I die "together." He died that night, and the body was examined 26 hours after death. The putrefaction, however, had made such advances that nothing satisfactory could be gleaned from the dissection. There were no worms in the intestines.

The disease is attributed by the natives to an insect which lays its eggs in the rugæ of the rectum when the person evacuates his fæces, and protrudes any part of the mucous membrane, in a woody or jungly spot. Our author has never seen any proof of the existence of this insect, and is more inclined to consider the malady as a species of dysentery commencing in the rectum, and confined to the lower portion of intestine. When taken early, its progress is easily checked, in the same way as gonorrhœa or ophthalmia; but if the disease be once communicated to the cellular structure surrounding the gut, the destructive progress goes on to a fatal termination. It appears principally among the African and Indian races. Our author met with one instance, however, in the person of an English half-pay officer. It was quickly subdued by the application of lime-juice.

In our author's practice in Trinidad, he made a free use of lime-juice, whenever the evacuations were bloody and mucous, and with decided benefit. This practice is adopted by the most experienced practitioners of the colony above-mentioned.

Dr. Ferguson, of Windsor, through whom we received the above curious document, has appended many ingenious and practical remarks, which our limits prevent us from giving at length. He looks upon the disease as a form of malignant dysentery, and asserts that he has seen many instances where the rectum was similarly affected among our soldiers in Flanders, during the campaigns of 1794, and subsequently in various parts of the world. Dr. F. speaks highly of

the utility of lime-juice and ripe fruits in dysentery, and mentions that the late Dr. Cabell was so much struck with the efficacy of this class of remedies in Spain, that when severely attacked with dysentery afterwards in Portugal, he rejected all medicine, and trusted his own cure to the abundant use of lemons and oranges. He recovered, and afterwards pursued the same treatment in the hospitals of the British army. We shall conclude this article with the following extract from Dr. Ferguson's comments on the paper of Dr. O'Connor.

" One word respecting the general treatment, and I have done: —which is, that, of all the plans offered for the cure of dysentery, the mercurial is unquestionably the best; not only because through its alterative accumulative powers, it supersedes almost every inflammation that is not too rapid in its course to be overtaken by any but the speediest remedies; (witness the hepatic, the syphilitic, the rheumatic, the iritic, and other inflammations;) but because all the common forms of mercury can be made to coalesce most advantageously with the anodyne, the sudorific, and the depletory auxiliaries; or even with the citric acid through the aid of opium, and still better if the skin be chosen for the medium of its introduction."

6. FATAL ABDOMINAL INJURY.

A melancholy case of this kind is reported from Guy's Hospital in No. 174 of the LANCET, accompanied by much implied censure on the practice of the medical officers in attendance. We may here remark, that hospital, like police reporters, should be cautious how they exhibit *themselves* on the stage. It has been well observed by the Morning Chronicle, that " *the business of a reporter is not to furnish a farce for the public, but to give an honest account of proceedings.*" Again, " *the reporter should be passive, and not appear in his own character as a satirist.*" This rule is still more necessary in hospital reports, where the character of medical officers may be injured by a license of the pen of the reporter, indulged in perhaps from caprice, or founded on error or misapprehension. We do not say that the report which we are about to notice is incorrect; but we think the bare statement itself would have answered all good purposes, without any italics, notes of admiration, or censorious comments of the reporter.

The case was that of a healthy young countrymen, 23 years of age, who, half an hour previous to admission, fell from the top of a loaded waggon to the ground, a distance of 20 feet. It did not appear that he struck against any thing before he fell on his back, on the ground. When admitted, (Nov. 25, 1826,) the man was pallid, and, " the *surface* of the body and the pulse at the wrist very *feeble.*" In an hour or two, there was some return of warmth,

* Morning Chronicle, Jan. 5, 1827.

and he vomited a dark brown fluid, complaining of great pain in the abdomen, especially in the right iliac region. The abdomen was tense and tender, the muscles appearing to be rigidly in action—pulse small and jerking at the end of three hours. He was ordered to be cupped on the loins—to have a purgative enema, and to take a grain of calomel with half a grain of opium, every five or six hours. 26th at noon; the vomiting continued through the night, but ceased this morning—pulse 120, and oppressed—tension and tenderness of abdomen continue. Sixteen ounces of blood were ordered from the arm, after which, the pulse became more expanded for about two hours, when it resumed its former character. 4 p. m. Fomentations to the abdomen—purgative enema. 27th. The pain and tenderness of abdomen undiminished—little sleep in the night—pulse 130, and small—tongue dry and brown—occasional vomiting. Opium given. 28th. Pulse 120—vomiting has ceased—bowels opened. One grain of opium. 29th. Pulse 130—abdominal symptoms still the same—bowels much purged. The cretaceous mixture, with confect. aromat.—twelve leeches to the abdomen—opium in the evening. 30th. Diarrhœa excessive—pulse 125—countenance flushed. Laudanum by the mouth and per anum. Dec. 1. Pulse incompressible and very sharp. To be cupped on the loins to six ounces—laudanum given for the diarrhœa, which is still excessive. Dec 2. Things much the same; ten leeches to the iliac region. The patient lingered till the 7th, when death put a period to his sufferings.

Dissection. On opening the abdomen, on the right side, "air escaped, with a large quantity of yellowish fluid, partly *fœcal* and partly purulent." This came from an extensive abscess formed "in front of the peritoneum." The "boundaries of this cavity were formed by preternatural adhesions. It was well defined, and was very extensive, reaching above as high as the liver, and below to the right iliac fossa." Another extensive abscess was found behind the peritoneum, extending over the lumbar muscles, as high as the eighth rib. The peritoneal covering of the intestines was generally inflamed. "There was *no lesion* of the intestines at any part *to be* detected; and, if any had taken place *in the peritoneum*, on the right side, in consequence of the fall, it could not be discovered in its diseased state."

The reporter's account of the *post-mortem* appearances is any thing but lucid. How he could first state that fæcal matters rushed out on opening the abdomen, and afterwards entertain a doubt of perforation of the intestine, we are at a loss to imagine. When we consider the height from which the patient fell—the symptoms of alarming collapse which he quickly evinced, the pallid countenance, cold skin, feeble pulse, vomiting, and tension of the abdominal muscles—and couple all these with the appearances on dissection, we cannot for a moment hesitate to believe that the intestine was ruptured by the fall, and that no treatment, however active, would have saved the unfortunate man's life. That such men as Mr. Callaway and Mr. Key adapted their plan of depletion to the phenomena which the patient presented, we have no doubt; and therefore,

viewing the whole case, we absolve them freely from that censure which is meant to be conveyed by their harsh—we had almost said *unjust* judge, the reporter, in the following concluding line of the case:—"*Passive* treatment for *active* inflammation."

As it is our intention to take a critical survey of all the more important hospital reports in the LANCET, we solicit information from the proper sources, on all points in the said reports, where error, misconception, or misrepresentation may have mingled themselves with the narratives. By this measure, we hope to contribute equally to public justice and public utility.

7. POST-MORTEM CHANGES IN MUCOUS MEMBRANES.

In our last number (11) pages 295-7, we presented our readers with a suite of experiments, made at the Veterinary School of Alfort, by Messrs. Rigot and Trousseau, respecting the *post-mortem* changes which take place in the internal surfaces of the blood-vessels. We now proceed to the experiments which relate to the internal surfaces of certain important canals in the animal fabric.

Most authors who have written on the pathology of the alimentary canal, have thought it proper to describe the appearances in a state of health. For this purpose the bodies of criminals have been examined, and, strange to say, an exceeding discrepancy of opinion was soon found to obtain in regard to the natural colour and appearance of the intestinal tissues! One author represents the mucous membrane of the stomach and bowels as of a yellowish white colour, mixed with a rosy tint:—Another says, the said membrane presents a vivid red colour; while a third affirms, that the natural colour of this tissue is grey, &c. When such differences were found in the parts in question, it was natural to inquire whether there were not some causes to be assigned for these varieties of appearance. In France, criminals are beheaded, and there is great hæmorrhage:—The mucous membranes are there generally found pale. In other countries, as in England, where criminals are hanged, the said tissues are often found of a vivid red tint.* Again:—Considerable difference was found in the colour of different parts of the same intestine—the superincumbent and the subjacent portions, for example.

The *former* are often found pale, and the *latter* red. Each has been asserted to be the natural or healthy colour during life—but without sufficient reason.

Among those who have specially directed their attention to this subject, M. Bretonneau of Tours, must be particularly mentioned.

* In our last number, page 49, while reviewing Dr Paris's work, we gave an example of the want of attention to the circumstances attending death, while reporting on diseased appearances on dissection. Thus, even Dr. Paris wonders at the paleness of a man's brain, where death was occasioned by hæmorrhage, and speculates on this paleness as evincing proofs of a *deficient circulation* in the brain during life! If physicians of Dr. Paris's character will commit such oversights in pathological investigations, what may be expected from the general run of investigators?

He not only examined the intestinal canal in those who had been executed, and who had died suddenly, while in apparent health; but also in those who died of diseases situated in other parts of the body. This was the true path to pursue. A man, for example, who was in previous health, is seized with pneumonia, and dies in seven or eight days, presenting no other symptoms than those characteristic of pulmonic inflammation. If, on dissection, the redness of tissue (which we shall presently describe) appear in the gastro-intestinal mucous membrane, we cannot, without perplexity, consider it as a proof of previous inflammation; for if we do, we must admit the existence of diseases without their symptoms, and thus be led into a Cretan labyrinth. Those who infer inflammation from the appearance of redness, and without symptoms, beg the question, and fall into the most inconceivable errors. PROST having discovered this redness in the lining membrane of the bowels, in almost the whole of those who died in the Parisian hospitals, declared it to be the effect of inflammation: Broussais raised this into a doctrine which exercises a wide and almost unbounded influence on the minds of men. He has thus given to his "*gastro-enterite*" too important a station in the nosological chart.

The authors of the present suite of experiments have endeavoured to throw light upon this important subject, by careful examination of healthy animals *immediately* after death, and at certain periods after the same event. A number of horses and dogs were killed, for the sole purpose of ascertaining what is the natural and healthy appearance of the mucous membrane; and immense differences were observable between the said tissues in dogs and in horses. In the former class, whose intestines are furnished with long and numerous villi, the mucous membrane was generally found of a tint resembling the lees of wine, this tint being more or less vivid, according as the membrane was in contact with alimentary matters, or only simply with mucous secretions. The villi themselves were usually pale, and the colour seemed seated in either the chorion, or the subjacent cellular structure. The tint above-mentioned varies much, according to the time which elapses during the examination. A few minutes made all the difference between paleness and redness, in knuckles of intestine placed under exactly the same circumstances in all other respects. This difference was no doubt owing to the action of the air—not, our authors think, the *chemical* action on the blood in the vessels—but the effect of an increased peristaltic movement, under the influence of the air, by which more blood is poured through the vessels of the surface thus exposed.

The experimenters are of opinion that the intestines of dogs are not calculated to afford just ideas of the natural colour of these parts in man. On some rare occasions, where abdominal wounds have given issue to the human intestines, the coats have appeared much thinner—the villi less discernible—and the blood-vessels much more numerous in the human than in the canine subject. The intestines of the horse, however, bear a considerable resemblance to those of man, both as to the thickness of the coats, the size of the villi, and the distribution of the blood-vessels. The resemblance,

indeed, between the equine and human intestines is not perfect. If the mucous membrane of the dog is more coloured than that of the human subject, that of the horse is rather less so. They examined 25 horses, which might be said to be alive, as the heart continued to pulsate till half the track of intestinal canal was overhauled. On all portions of intestine, examined while the heart was yet beating, they could plainly see the meseraic vessels externally playing over the gut; but not in great numbers. The peritoneal covering never exhibited the smallest colour or trace of injection The parietes of the intestines appeared much thicker than in the dead animal, and the calibre much less in size. The colour of the mucous membrane was generally pale, with a slightly yellow tint. In some places there was occasionally seen a very faint reddish tint. The internal surface of the stomach had rather more of this tint than the intestines.

We cannot afford space for the details of the individual experiments; but we perceive that the redness of the mucous membranes increased in proportion to the time which elapsed between the death of the animal and the dissection—also, according to the position of the parts, the superimposed being less, and the subjacent portions more tinged. The redness appeared evidently to be occasioned by the injection of the capillaries from the contraction of the arterial trunks, which contraction has been shewn by Dr. Parry to go on for some time after cessation of the heart's action—in fact, till the arterial tubes have nearly or completely emptied themselves. Gravitation, also, has great influence in producing congestions of blood in all depending parts.

Our authors are indefatigably employed in ascertaining the differences between *post-mortem* and *ante-mortem* changes in the tissues of the body, which they will publish forthwith. In the mean time, they consider themselves authorized from the numerous experiments which they have already detailed, to draw the following conclusions:—

1mo. That the arborescent injection, occupying the trunks, branches, and ramifications of the meseraic veins, is the invariable result of a stasis of the blood in the subjacent or dependent knuckles (dans les anses declives) of the intestinal tube.

2ndo. That, generally speaking, this injection does not go beyond the ramifications of the veins, (ramuscules veineux) in the bodies of healthy individuals.

3tio. That often, in those who have died of an acute disease, (provided they were not profusely bled) the trunks, branches, and ramifications of the veins are injected, as also the villi, without any inflammation having existed, during life, in the intestine.

4to. That sometimes the blood distends, at once, the trunks, branches, and ramifications of the veins—colours the villi, and transudes on the surface of the mucous membrane, without any inflammations of the intestines, merely from stasis of the blood in depending parts.

What has been said of the small intestines will apply also to the stomach and to the colon, excepting that, in these latter, the appearances are not so well marked. These appearances have also

proved, what, indeed, has been long suspected, namely, that the *post-mortem* or cadaveric alterations in the lungs may go to such an extent as to diminish the cohesion of the pulmonary parenchyma, and completely expel the air from the air-cells of dependent portions of lung. They prove, also, that the bronchia may become vividly coloured in the parts of lung where the blood has accumulated, without any preceding inflammation.

We recommend these experiments and observations to the attentive consideration of the profession; and hope they will tend to correct many erroneous conclusions which are daily drawn by heedless inspectors of the dead.

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8. DISEASE OF THE THYMUS GLAND.

In the 5th No. of the Ed. Journal of Medical Science, Mr. Wood, of Kilmarnock, has published a paper, entitled, "Cases of Sudden Death, and Affections of the Head, originating from Diseases of the Thymus Gland and Chest." This paper is illustrated by the details of nine cases, with the dissections, and a long train of observations. We shall first give the conclusions which Mr. Wood has come to, from these data, and then introduce the particulars of one or two cases.

"From the facts which have been presented in the history of these cases, and the appearances which were exhibited on dissection, the following inferences may be drawn:—

"*First*, That the thymus gland is subject to disease, and susceptible of undergoing various morbid changes, such as scrofulous enlargement, scrofulous ulceration, and caseous degeneration.

"*Secondly*, That diseases of the chest, sometimes in adults, and enlargements of this gland in children, frequently induce a dropsical condition of the brain, without being preceded or accompanied by the idiopathic symptoms of hydrocephalus.

"*Thirdly*, That morbid enlargement of this gland may be inferred to have existed during life, when the child is cut off suddenly, without any previous complaint, from a fit of crying, or violent irritation of any kind, however it may have been induced.

"*Fourthly*, That chronic enlargement of this gland may be inferred to exist in infants subject to fits, as in the first, third, and seventh cases, and in all cases of chronic, spasmodic, or cerebral croup, as this complaint has been variously designated by different writers.

"*Fifthly*, That in all these chronic cases, water in general will be found in the ventricles, and on the surface of the brain, in consequence of the pressure of the gland upon the trunks of the veins coming from the head.

"*Sixthly*, That a dropsical condition of the brain, proceeding from venous exudation, may be cured, if the disease in which it originated can be removed, and in the attempt to effect this, the patient must be treated in every respect as for an enlarged scrofulous gland."—*Journal*, p. 69.

We shall particularize a few cases, in order that our readers may be enabled to judge how far Mr. Wood is justified in the conclusions (somewhat extraordinary certainly) which he has drawn.

Case 1. A child, aged 9 months, "was seized with a sort of convulsive disorder," in November, 1814, which was removed by the warm bath, leeches, and some common remedies. The paroxysms returned occasionally, especially when the child was awoke suddenly out of a sleep—or when it cried vehemently. It then became livid, and was incapable of making a full inspiration, its instinctive efforts to draw in breath being stopped and broken by convulsive struggles, reiterated at short intervals. The evening before its death, the child was lively, and had the aspect of good health. The following morning, as the child was lying supine, crying on its mother's knee, it suddenly expired in a convulsion.

Dissection. The blood-vessels of the meninges were much distended, though considerable effusion had taken place from the veins. Both hemispheres of the brain were dropsical on the surface, a quantity of serous fluid having been effused between the pia mater and tunica arachnoidea. The brain itself was soft, and in the right ventricle there was half an ounce of water. In the chest, the heart, lungs, and large vessels were sound; "but the thymus gland was much enlarged, and, as it was supposed, might weigh considerably more than two ounces." On cutting into its substance, a quantity of thick brownish matter escaped, resembling ill-formed pus.

Case 2. This was a child, only 13 months old, who died suddenly in consequence of an incident apparently trifling. He was supposed to be in good health, and of sound constitution. When the child cried vehemently, or was suddenly started from sleep, its countenance became livid, and its respiration impeded.

On dissection, the lungs were sound, but the large veins in the top of the chest were extremely distended with blood. The thymus gland might weigh two or three ounces, and was partially indurated. It contained a creamy purulent looking matter. The head not examined.

Seven of the nine cases occurred in children—two in adults. We shall give a short analysis of the latter.

Case 3. (*Case* viii.) A woman, aged 58 years, complained, for more than a year, of pain immediately behind the sternum, not so severe as to prevent her from attending to her domestic concerns. A cough imperceptibly arose, and for the last three months of her life had a loud, croupy sound, attended with difficult respiration. Mr. W. suspected the pressure of some tumour on the trachea. Leechings and an alterative mercurial course were prescribed. While the leeches were sucking, some relief was afforded; but no sooner had they dropped off, than all the symptoms returned with tenfold violence. The veins of the head were seen greatly dis-

tended, and the obstruction to respiration was great. In this state she continued about eight days, without swallowing any nourishment, and suddenly expired at last.

Dissection. The lungs were sound—heart soft and fatty—arch of the aorta aneurismal, the tumour pressing on the bifurcation of the windpipe. There was much infarction of the cellular substance between the tumour and the descending cava, apparently obstructing the free return of the blood from the head. The brain was not examined.

Case 4. (ix.) A man aged 60 years, who had enjoyed good health, was seized with a fit of laughing, in a work-shop; and when the cause of mirth was over, still he continued involuntarily to laugh. He remained in this state till he fell down in a fit of epilepsy. For several weeks he had returns of the fits, to which succeeded a kind of mania. This last continued six or eight weeks, and then gradually subsided, when he was seized with asthma so severe as to be little susceptible of alleviation. He gradually sunk under this disease.

On dissection, the vessels of the head were found distended, and there was effusion of water on the surface of the brain. The ventricles contained a large quantity of water. On raising the sternum, a white hard tumour of great magnitude was observed lying to the right of the base of the heart. The veins on the top of the chest were much distended with blood, and the tumour was found to embrace the whole trunk of the descending cava, thus greatly diminishing its calibre. A white cauliflower looking substance also projected into the inside of the vessel an inch above where it enters the auricle. The tumour weighed nearly two pounds, and involved the trunk of the pulmonary veins. It was of firm consistence, but when cut into, a cream-coloured fluid issued, not contained in any particular sac. There was no other disease.

Our author enters next upon a review of the nine cases which he has detailed, and considers that one general feature pervades the whole, modified by the particular circumstances of each individual. "In all the seven children, the thymus gland seemed to be the primary seat of the disease. In four of these it was very much enlarged; in one case it was caseous, in another, ulcerated, and in a third, it appeared to have been entirely destroyed by a process of ulceration." In the aneurismal patient, "the croupy cough, the insupportable dyspnœa, the swelling of the veins in the neck and arms, evince with how much difficulty the blood was transmitted through the circulating system." The large tumour in the last case, by obstructing the return of blood from the head, produced, in our author's opinion, asthma and effusion of water on the surface of the brain. "The effusion of water on the surface of the brain and in the ventricles, in the majority of the cases, in which this viscus was examined, appeared evidently to be the *consequence* of some obstruction to the return of the blood by the veins from the head, rather than the effect of inflammation in the brain itself, or its membranes."

It is upon this last pathological supposition, that the whole drift of Mr. Wood's paper rests. We confess that the facts and arguments brought forward by Mr. Wood, have not carried conviction on this

point. Contemplating the serious morbid appearances in the brains of these children, we are led to the inevitable conclusion, that their sudden deaths were owing to the cerebral affection; but that this cerebral affection was owing to previous disease in the thymus gland, we have very great doubts. Nevertheless we give all due credit and praise to Mr. Wood for the candid manner in which he has detailed the facts, and for the ingenuity with which he has maintained his own theory respecting the etiology and pathology of the fatal diseases here brought before the notice of his brethren. We recommend an attentive perusal of the original to those who are desirous of further information on the subject.

9. FATAL MORTIFICATION OF THE GREAT TOE.

A curious and melancholy case of this kind was lately reported [LANCET, No. 167] from Bartholomew's Hospital. The patient had been a sailor, and received a bruise from a horse's foot, on the toe, some three weeks previously. The toe had swelled, became livid, and festered. The constitution began to sympathize in a week after the accident. A fortnight before he was admitted, the toe became insensible, after having been very painful. *Nov.* 2. The integuments of the toe are livid or black—and beyond this, the skin is of a dusky ash-colour, and vesicated—no distinct line of demarcation. Constitution greatly disturbed—head-ache distressing—no sleep—pain in the foot unremitting. He was ordered aperient medicine, and after its operation, wine and quinine. 3*d*. He passed a better night—was this morning free from head-ache, and had a clean tongue. Towards night the bad symptoms returned. The wine and quinine discontinued. 4*th*. The above medicines were resumed, and continued for some days. At one time there was a faint appearance of commencing separation; but this was transitory, and the gangrene spread slowly upwards. On the 14*th*, although the mortification was still spreading, yet the foot and leg were much less swelled—the tongue was clean—and the pulse was down to 90, with good appetite. Mr. Lawrence called Messrs. Earle and Vincent to consult respecting the propriety of amputation. Mr. L. and Mr. Earle were for the operation—Mr. Vincent against it; considering there was ossification of the arteries, and observing that, in three similar cases, amputation was unsuccessful. On the 18*th*, things were nearly in *statu quo*, but the mortification was still spreading. Mr. Lawrence determined to amputate, and the operation was performed below the knee. There was much oozing of blood from the small vessels, and *two veins* were tied. The arteries were found somewhat diseased. Hæmorrhage came on, in the evening of the operation, and was restrained by cold. On the 20th the stump was opened, and no adhesion had taken place. There was an offensive sanious discharge. He lingered till the 3d December, when he died.

On *dissection*, the arteries were found, here and there, ossified—vena saphena interna thickened and resembling an artery. In this and in

the femoral vein there was purulent matter, but no appearance of inflammation. In both hip-joints there was pus in the cavity of the capsule, and the reflected portion of synovial membrane was absorbed, and the cartilage ulcerated. In the thorax there was some sero-purulent effusion.

In this case Mr. Lawrence and Mr. Earle acted on the principle recommended many years ago by Baron Larrey—that of not waiting for a line of demarcation between the dead and living parts. In two instances we adopted this practice, when the mortification was threatening to extend to the upper part of the thigh; but in both, we failed of success. We believe, with Mr. Vincent, that the practice is inadmissible. If the constitution has not power to arrest the progress of the mortification, we do not think that the addition of an operation will augment that power, or prevent the morbid process going forward afterwards in the stump. Baron Larrey, however, thinks differently, and has adduced cases of success.

10. OBLITERATION OF THE AORTA.

Dr. A. Monro has communicated to the Editor of the EDINBURGH JOURNAL of MEDICAL SCIENCE, some particulars of a case where the abdominal aorta was obstructed by a tumour. The man was of middle age, and having been exposed to cold, was seized with pain of side, difficulty of breathing, cough, expectoration, and other symptoms of phthisis, of which he died in the course of four months. He had evinced no degree of weakness, numbness, or palsy of the limbs, and could walk till within a day or two of his death. When the abdomen came to be examined, a circumscribed tumour was observed lying upon the second and third lumbar vertebræ, connected with the aorta. It was about the size of an orange flattened, and adherent to the second and third vertebræ, which were carious. It was filled with clotted blood. The sac did not seem to be composed of distinct layers, but resembled thick leather that had been soaked in water. The aorta entered into the middle of the sac, and the latter appeared to be a uniform expansion of the former at its division into the iliacs. The tumour was filled by layers of coagulable lymph crossing each other in various directions, so as to form a confused and irregular mass. The contracted portion of aorta immediately below the aneurism was quite impervious. The case therefore proves that the circulation may be carried on below an obliteration even of the aorta, by means of various anastomosing vessels. The case goes to the justification of the attempt made by Sir Astley Cooper to save life by tying the aorta. The want of success in one or two cases is no proof that the principle is bad. At the same time, we can hardly expect that the system will bear a formidable surgical operation, and sudden ligature of the aorta, with the same degree of impunity as a gradual obliteration of the vessel by an aneurismal tumour. These spontaneous obstructions and the results of experiments on animals merely form, as we said before, justificatory data for the aortic ligature, in cases of extreme danger, and where no other means can offer a chance of saving life.

MEDICAL JURISPRUDENCE.

11. HOMICIDE—SUICIDE—INFANTICIDE.*

The crimes at the head of this article are every day attributed to insanity—and especially to a peculiar monomania, or irresistible propensity in individuals to imbrue their hands in the blood of themselves or others. That homicide is *sometimes* committed through this propensity, there can be no doubt—that infanticide is *often* perpetrated during a momentary subversion of reason and conscience, we believe—and that suicide is *almost always* the result of intellectual aberration, on one or more particular topics, we have very little doubt.

The actions of men are obvious enough; but the motives are generally concealed in impenetrable night. As far as regards homicide and infanticide, the strictest scrutiny should, of course, be put in force, when the plea of insanity is urged; but we have ever entertained a horror of that law which pursues the suicide beyond the grave, and stabs the lifeless corpse, not indeed as a punishment for the crime committed, but as a preventive of the crime in others. That the infliction of the penalty on the body of the suicide would have the least effect in deterring others, we cannot admit, since it has been proved that even the accounts which are published of suicide and infanticide have frequently led to the same catastrophes in others, by the impressions made on weak minds, thus leading to subversion of reason. The plea of insanity for the extenuation of crimes subjects the medical witness to a most embarrassing examination, and places him in a situation of great difficulty. The most effectual mode of preparing himself for such scrutinies is to study individual cases first, and draw general conclusions afterwards. It is on this account we have taken up the recent publication of M. Georget, who has published some "*causes celebres*," where this mono-maniacal propensity was pleaded, and where great general and professional interest was excited in France by the said trials. Contrary to the plan of M. Georget, we shall place an analysis of these trials before our readers before we enter into any discussion of the subject generally.

TRIAL OF HARRIET CORNIER.

The case of this female produced an uncommon sensation at the time, and it has been publicly asserted, on the best authority, that the reports of her trial led to the commission of several similar crimes.†

* Discussion Medico-Legàle sur la Folie, ou Alienation Mentale, suivie de l'Examen du Procès Criminel d'Henriette Cornier et de plusieurs autres Procés dans lesquelles cette Maladie a eté allegué comme Moyen de Defense. Par M. GEORGET, M.D.

† See pages 226-7 of our last Number, where some of these cases are detailed.

H. Cornier, a female servant, aged 27 years, had been of a cheerful and rather gay disposition, till the month of June, 1825, when she was perceived to become taciturn and melancholy. Not giving satisfaction to her employers, she was discharged their service, and from that period her melancholy increased to a kind of stupor. She would not disclose to her relations the cause of her mental dejection. One morning in September (1825) she came to the house of a female cousin, pale and agitated, stating that she had just made an attempt to drown herself in the Seine, but was prevented by some persons on the spot. No information could be drawn from her, as to the cause of this rash attempt. On the 27th October, her friends procured her a place, in the house of Mad. Fournier, but there, she still presented the same characters of melancholy and despondency.

On the 4th November, Harriet's mistress went out to walk, and desired the maid to prepare some dinner by a certain hour. She was also desired to procure some cheese at a fruiterer's shop in the neighbourhood. The woman who kept this shop had two children, one seven and the other nineteen months old. There existed between the mother of these children and Harriet Cornier neither intimacy, quarrel, or source of jealousy. When Harriet went to the shop at times, she always caressed and praised the elder child, named Fanny, and repeated these caresses on the day in question, with more than usual ardour, at the moment when, it was evident, she meditated the destruction of the innocent infant. The mother of Fanny informed Harriet that, as the weather was fine, she was going to take a walk with the child, and Harriet begged permission to amuse her while the mother put on some articles of dress for the intended promenade. This was complied with, though reluctantly, by the mother, who had no sooner gone up stairs than Cornier hastened home to her master's house with the child, and laying it on a bed, instantaneously severed its head from its body with a large kitchen knife! This bloody deed was done with such rapidity, that the infant had not time to utter a single cry! On a subsequent examination this infatuated creature declared that, during the murder, she felt no particular emotion—neither a sense of horror, of joy, or of fear. She confessed, however, that, a few minutes after the commission of this frightful act, she did feel a momentary remorse of conscience, which soon subsided. Leaving the decapitated corpse where it was, she first went into the bed-room of her mistress; but soon left that, and repaired to her own chamber, where she remained full too hours. By this time the mother of the infant arrived, demanding her child. Harriet coolly answered "that the child was dead." The mother at first thought Harriet was in jest, but soon saw something in her countenance which struck a horror through her frame. She rushed past Cornier, and the beheaded corpse of her infant and the bed and floor deluged with blood, presented themselves to her view! At this moment Cornier snatched up the head of the murdered child, and tossed it through a window into the street. The father now came running to the house, and the first thing he saw was his child's head, which the wheel of a fiacre had

just gone over in the street! All this time the murderer was coolly seated on a chair in the room near the body of the child, and making no attempt to escape. The commissary of police arriving, found her in a state of stupor. She denied no part of the act, but detailed all the circumstances—even the premeditation of the murder, and the arts which she had used to lull the suspicions of the mother, and enveigle from her the devoted victim of her bloody design. On being closely and repeatedly interrogated as to her motives for this terrible act, she either could or would not assign any other than that it was her destiny. When asked for her motive in hurling the head into the street—she answered that it was for the purpose of attracting public attention, and of drawing towards the house a sufficient number of witnesses to prove that she alone was the murderer. Among the spectators which soon collected on the spot, were several medical men, who declared it as their opinion at the inquest which was held, that Cornier was monomaniac, or insane on some particular point. She continued in a state of stupor, yet answered questions, though slowly, with precision and correctness. On the most minute investigation into her history, no trace of mental alienation could be detected, with the exception of the supposed attempt which Cornier had made to throw herself into the Seine. As a remakable instance of the imperturbable state of the prisoner's mind, it was ascertained that the menses were flowing at the period of the assassination, and continued to do so, without the slightest interruption from the horrible act which she had just perpetrated, or the fear of any consequences which might result from thence.

In answer to interrogatories before a judge or magistrate, she averred that she was not ill—that she had no cause for chagrin or melancholy—that she had been married about seven years previously, but not happily so—that she attempted to drown herself because she was tired of changing her situation so often from one service to another—that the inclination to destroy the child came suddenly upon her, and that she never before had had such an inclination—that she experienced no particular emotion in perpetrating the deed, whether of gratification or repugnance—that she felt a momentary horror when the blood was flowing about—she was perfectly conscious of the nature of the act she was committing—that the fear of God did not deter her, because she then believed that there was no God—that she knew homicide deserved death—that she desired death, since life was to her insupportable. When asked finally if she persisted in acknowledging that she committed the murder, she answered steadily in the affirmative.

She was tried, for the first time, on the 27th February, 1826. She then appeared in a state of great nervous irritation—her limbs trembling—her eyes fixed—and her intellects in a state of stupor. A few days previously a medical commission, consisting of Drs. Esquirol, Adelon, and Léveillé, was deputed to examine into the moral and physical condition of Harriet Cornier, and after repeated investigations, collectively and separately, they reported their inability to detect any sign or proof of mental alienation in the prisoner. But

they properly observed that, in many cases, it is extremely difficult to detect insanity—it requiring a long intimacy with the individuals, and numerous opportunities of watching them in all their varying states of temper and disposition. In fine, they reported that, although they were unable to adduce any proof of Cornier's insanity, they could not pronounce her to be free from any aberration of intellect.

This report being inconclusive, the advocate-general remanded the prisoner for another session. She was conducted to the Salpetriere, and there subjected to minute observation for three months, when M. Esquirol and his confreres made the following report:—namely, "that the most attentive observance of Cornier by themselves and the nurses could not detect any symptom of general or partial insanity. She was plunged in profound melancholy, but this might arise from the circumstances in which she was placed, and which she was perfectly capable of appreciating." But the doctors concluded their report with a wise reservation, that they could not vouch for her perfect sanity, especially if it was proved on trial that the melancholy, taciturnity, and other symptoms of a disturbed mind existed previously to the commission of the act for which she was now arraigned.

The prisoner was again put on her trial, the 24th June, 1826. She was seized with a fit of trembling on being led into court, and seemed to pay little or no attention to the act of accusation when read before her. Her answers to the interrogatories of the president were brief and in a low voice. Several witnesses deposed, that long before the commission of the crime, the prisoner had expressed herself as tired and disgusted with life—that she would sometimes laugh out loudly, and at others cry without any ostensible, or at least adequate cause. Several physicians were examined, among whom were Esquirol and Adelon, but they could not make up their minds to any certain conclusion, on the subject of Cornier's sanity or insanity. There was a great deal of reasoning and ingenuity adduced on both sides—the prosecution and defence—and the decision of the jury was, that Harriet Cornier had committed homicide *voluntarily*, but negatived the accusation of *premeditation*. The punishment was hard labour for life, and to be branded with the letters T.P. She heard the sentence without evincing the slightest degree of emotion.

We shall not follow M. Georget in his numerous remarks on this interesting trial. He properly criticises the advocate general, who, in an elaborate speech for the prosecution, ridiculed the idea of a person being insane on a single point—in fact, he characterised the doctrine of monomania as a chimera—a modern resource for rescuing the guilty from the hands of justice—or an excuse for depriving arbitrarily a citizen of his liberty. It is useless to expend a line in refutation of this absurd assertion of M. Dupin. Unfortunately monomania is no chimera of the imagination—nor is it a modern disease. It existed in all ages; but formerly it was concealed under the denomination of melancholia, or hypochondriasis, of which in fact, it is only a high degree. For this reason, there can be no doubt

that thousands have suffered for crimes, or rather fatal actions committed during moments when reason had no dominion over the individual. We think our readers will agree with us that, although the physicians appointed to inspect the moral and physical condition of Harriet Cornier, could not detect any specific symptom or proof of insanity, yet reason and common sense, independently of any medical knowledge, would come to the conclusion, from the facts of the case, that this wretched female was insane at the time she committed the fatal act for which she was tried. We agree with M. Georget in the following sentiment:—"Un acte atroce, si contraire à la nature humaine, commis sans motif, sans intérêt, sans passion, opposé au caractere naturel d'un individu, est evidemment un acte de demence." The jury ought to have acquitted her on the plea of insanity—and the punishment should have been imprisonment, not hard labour, for life. We are convinced that this would have been the case had the prisoner been tried in an English court.

M. Georget coincides with Esquirol and many other physicians that the reports of these cases of suicide, homicide, and infanticide, tend greatly to produce repetitions of the same mournful scenes. Where there is any tendency to monomania, the recitals of such events accelerate the march of this disposition, and lead to explosions of a similar kind. In this respect police reports, and trials for murder and infanticide, have their disadvantages, as well as their advantages.

2. PARRICIDE.

He who doubts that *propensities* are born with us, should read attentively the following history. The mind is doubtless like a sheet of white paper *at birth*, as far as *knowledge* is concerned. No man comes into the world with a knowledge of his A, B, C,—but many are born with almost irresistible *propensities* to various actions or practices, good or evil, independently of the moral or physical circumstances in which they may happen to be placed.

The following case of Parricide happened at Metz. John Schmitt, the perpetrator of the horrible and unnatural act, was only 17 years of age, and it was clearly proved that, from his infancy, he evinced the most strenuous propensity to mischief, and even to ferocity. From the time he was able to run about the streets, he used to lie in wait, and amuse himself with throwing stones and filth at the passengers and even at animals that passed the house. Several people had thus been wounded, and as a child, John Schmitt got the name of the young madman. Happy had it been for himself and his parents, had he now been placed in some situation where he would either have been deprived of the power of doing mischief, or so severely corrected for his conduct as to have called forth his reasoning powers to prevent the penalty attached to such actions.

The sister-in-law of Schmitt, who resided in the same house, had caught the itch, and communicated it to the whole family. This caused great quarrels between her and Schmitt, which often came to actual

blows, by one of which the female was severely wounded. On another occasion he attempted to drown, and that not succeeding, to murder one of his cousins, Anthony Littre, aged 16 years. The latter was fishing with a rod and line on the bank of a pool, when Schmitt came to him and enticed him to a part of the bank which was higher, and where the water was deeper. Schmitt then suddenly pushed him into the pool, and mocked him when he cried out for assistance! The youth, however, got out of the water at another place, when Schmitt pretended that it was all in jest, and desired to know if the water had penetrated to the skin. Littre, to prove this, opened his waistcoat, when Schmitt instantly plunged a knife, which he had with him, into the boy's breast. Happily the wound was not mortal.

During the night of the 17th July, Schmitt's father was employed in boiling wood-ashes; and at four o'clock in the morning, called the son out of bed to assist him in taking the vessel off the fire. Young Schmitt came down in his shirt, and assisted his father in the operation above-mentioned; but while his father was stooping in doing something, the son seized a hatchet which lay on the floor, and struck his father a blow on the head, which laid him prostrate and insensible on the floor! The wretch then ascended to the chamber where his sister-in-law and her husband slept, and wounded the former dreadfully by a cut of the same hatchet. This roused the brother-in-law, and the whole family, and Schmitt was secured. The father was raised up and put to bed, but almost immediately expired! Schmitt profited by a moment's liberty which he got, to huddle on his clothes, and made an attempt to spring through a window into the street, but was prevented. He then demanded to see his father. When conducted to the bed where the corpse lay, he raised the sheet off his father's face, and pronounced these remarkable words:—"Ah! my dear father, where are you now—and where shall I soon be! It was yourself and my mother who were the cause of this misfortune, and long ago did I predict this to you! If you had brought me up better, this would never have happened."

When interrogated as to the motive which urged him to the horrid deed, he replied that it was unquestionably the devil. He also pleaded that the itch which had been communicated to him by his sister-in-law, and which had been driven in by some application, was the cause of occasional loss of reason, and of violent and ungovernable impulses to immolate every thing that came in his way. Numerous witnesses proved that this boy exhibited, at times, the most profound sense of religion and piety—such was the strange compound of opposite propensities in this youth.

M. Vivier, the advocate who defended him on his trial, made a most talented speech in favour of Schmitt's insanity, during which, he was often interrupted by the prisoner, who declared that he was not insane. The jury, after ten minutes' deliberation, brought in a verdict of guilty on all the counts of the declaration. He was, therefore, condemned to death.

To the counsel who had been granted him for his defence, Schmitt

confessed that whenever an instrument of any kind came into his sight, he felt the most urgent desire to wound or kill the first person that came in his way.

After the trial, he refused to petition for mitigation of punishment, urging as the cause of his refusal, his wish to spare his mother the wretched feelings of suspense during the delay which this petition would occasion—being thoroughly convinced that there was no mercy for the PARRICIDE. On the night before his execution, when presented some victuals, he asked what it was o'clock; and being answered that it was very near midnight, he refused the food, observing that in a few minutes more it would be *Friday* morning, when it would be a sin to eat meat! When walking barefooted to the scaffold, he was asked by his confessor if the stones did not hurt his feet, (which, by the way, appears to have been a very idle question of the holy father,) he replied in the negative; and wished that they had condemned him to walk over thorns in his path to the grave! On the scaffold, one of his hands was first cut off; during which he evinced not the slightest suffering, and never uttered a complaint up to the moment when his head was severed from his body.

M. Georget had seen this unfortunate youth many times, and was always struck with the extremely diminutive size of his head, as compared with his body, and also with its unusual configuration. His forehead was exceedingly low and narrow—the sinciput was very much elevated—and, above each meatus auditorius, was a very remarkable prominence. The skull of this individual presented a great resemblance to those described by M. Pinel as belonging to idiots.

"Observe," says M. Georget, "in this wretched youth, the strange assemblage of religious and wicked propensities—two kinds of sentiments which would seem to repel each other, and the reunion of which, in any one individual, would seem impossible, except in consequence of the peculiar organization of this young man's head. Observe the horrible act which Schmitt committed, without any ostensible motive, and at so tender an age—consider the exclamation which he uttered on viewing the corpse of his father—the avowal which he made, that he was always haunted with the propensity to shed blood—contemplate the formation of his head—and you will be constrained to admit that this youth was disgraced by the hands of nature from the moment of his birth—and that he brought into the world with him those vicious propensities which had not been sufficiently counter-balanced by ideas of morality, justice, and the fear of punishment."

We do not see how these sentiments can be negatived. They are favourable, it is true, to the doctrines of phrenology; but not in repugnance to reason, religion, and morality. These vicious propensities, though they might not be eradicated, might be greatly coerced by proper education, and by proper discipline. Had Schmitt been severely chastised, early in youth, for each of those mischievous tricks which he performed, the fear of punishment would have ultimately counteracted the propensity to misdemeanour. How

do we break the spirit and curb the bad qualities of an unruly horse, when young?—By education and discipline truly! Had Schmitt been confined to hard labour or solitary captivity for a proper period after his first attempt to drown and murder his cousin, he would not have committed parricide. We see nothing in the doctrine of *organic propensity* to clash with the very best principles of education, moral and religious—but every thing to strengthen the propriety of early discipline, early coercion of the passions, and early chastisement for every deviation from the paths of rectitude.

In respect to the individual, whose history and ignominious death we have recorded, M. Georget gives no opinion, as to the justice or injustice of his sentence, unless his sentiments can be gathered from the passage which we have literally translated above. We think no man can aver that Schmitt was in a state of perfect sanity of mind. But it would be also difficult, if not dangerous, to aver that he was not amenable for the act which he committed, though not of sound mind. There may be culpable homicide, even in mania. It is quite evident that Schmitt could never again have been safely let loose upon society; but his history and fate offer a lesson to parents not to neglect the correction of early vicious propensities.

MISCELLANEOUS CASES.

3. *Case of Mons. Tristel.* In January 1821, there was to have been executed at Rouen, a young man of 17 or 18 years of age, belonging to a respectable family in easy circumstances, for the crime of attempting to poison several of his relations: but he anticipated the executioner by putting himself to death by the same means. Dr. Vingtrinier, surgeon of the prison of Rouen, examined this young man's body, and after investigating the immediate cause of death—arsenic taken into the stomach—proceeded to dissect the brain, and there he found unequivocal evidence of chronic inflammation of the membranes, of considerable standing The following were some of the principal facts which came out on Tristel's trial. *First*, the prisoner had experienced, in his infancy, great pains in his head, and much tendency to somnolency—2d, at the age of ten years he became triste and melancholy, preferring solitude to society, and evincing a strong propensity to torment animals, and break and destroy all the little articles or objects of amusement belonging to his comrades. At the age of puberty, his intellectual faculties were but imperfectly developed; and it was observed that he was very much in the habit of calculating sums of money, and employing himself in speculations which showed that he entertained a strong inclination to amass riches. It appeared also, that this dominant idea engendered a secret jealousy towards his brothers and sisters—and ultimately the horrible design of poisoning not only them, but also his parents! The family were numerous, and many of his brothers and sisters married and living at a distance. Some of them also had families of their own, so that to make himself the sole heir of the paternal property, he saw it necessary to destroy a great number of

individuals—at least fifteen or twenty! In the year 1820, he contrived a reunion of almost the whole family circle, at his father's house, with the intent to poison the whole! Some days previously, he procured, at a chemist's shop, a large quantity of arsenic, under some pretence or other, which he distributed, the day of the banquet, in the soup and other dishes which were preparing for dinner. The quantity of arsenic thus distributed, was so great as to cause instant vomitings in those who partook of the victuals, in consequence of which, no person died of this horrible attempt.

It is properly supposed by both Dr. Vingtrinier, and M. Georget, that such a horrible and *extravagant* project could not have been engendered in a sane mind—and the appearances, on dissection, proved almost to a demonstration, the insanity of the individual. His condemnation therefore to death, though naturally to be expected from a jury who could not comprehend the nature and effects of monomania, was probably not consistent with strict justice.

4. *Case of Matricide.* At Bergerae, in the course of March 1826, a strange and horrible matricide was committed by a young man of good education, and who was greatly attached to an aged and infirm mother, whom he attended and nursed with the most filial solicitude. The parent being threatened with death, by some acute disease, the son became greatly agitated, and plunged into profound grief. He fasted and prayed without ceasing, for the recovery of his parent. On the day before the commission of the dreadful act he appeared more tranquil than usual. In the evening he prayed in the presence of his mother and the servants, and went to bed without evincing the slightest aberration of intellect. He had not been more than a quarter of an hour, however, in bed, before he started up and repaired to his mother's chamber, where he announced to her, with apparent transports of joy, that he was an angel commissioned by God to deliver her from all her sufferings. He had scarcely pronounced these words, when he seized his parent by the throat, dragged her out of bed, and quickly put a period to her existence by repeated blows with a solid chair which was in the room! The unfortunate wretch was seized and put into prison; but it required four men to guard him night and day, in order to prevent his destroying his own life, by dashing himself against the walls and floor of the gaol. The adjudication of this case is *not given*, but we suppose no jury would think of bringing in any other verdict than that of insanity. Here is an instance of *moral* circumstances overcoming the understanding, and producing the same effect as physical lesion of the brain. It is a very different thing, however, from that propensity to evil which comes along with existence, and seems to depend on organization. The youth who was thus deprived of reason by a too anxious filial solicitude, stands in a very different light from the youth who committed parricide from unrestrained indulgence of vicious propensities. The latter might perhaps deserve mercy from a tribunal of justice—but the former is entitled to commiseration and sympathy.

It appears that the tribunals of justice and the crown lawyers in particular of France, are averse to the admission of such a state as homicidal, suicidal, or infanticidal monomania, and the various trials of individuals seem to authorise this conviction of our continental neighbours. M. Georget raises his voice against this injustice in the criminal code of his country, and not without considerable effect. He justly observes that the monomaniac may presere a very fair portion of intellect on every other subject but that which is directly connected with his hallucination. The dominant idea may also change, and vary its object. If you disperse one chimera from the mind, another rises, and these exclusive illusions may thus succeed each other *ad infinitum*. On this account it is very difficult sometimes to determine whether such and such an act has reference to the mental illusion that, at the moment, possessed the individual.

Again:—The melancholic insane, or the monomaniac, may preserve a profound silence, *for years*, on the subject of their hallucination. Pinel mentions the following fact:—A commissioner went to the Bicêtre, for the purpose of liberating those whom he considered cured. He particularly interrogated an old vine-dresser, who evinced not the smallest symptom of mental alienation during a minute examination. When the procés-verbal, however, was delivered to the peasant for his signature, before being discharged, he very coolly signed himself Jesus Christ, and then broke off into ridiculous asseverations respecting his own divine character.

5. *Case of Homicide.* On the 12th February, C. E. N. aged 30 years, murdered an infant of four years of age, (near the gates of Konigsberg,) with whom she had travelled in a voiture from one of the neighbouring villages. The culprit continued to draw the conductor of the voiture a little aside, and then with a large knife which she had concealed about her person since the preceding day, she severed completely the child's head from her body! The conductor was the father of this child, whom she persuaded to bring with him on the journey. This female immediately confessed the act, and delivered herself up to public justice. She then declared, and always after kept to the following story. She had had a quarrel with a neighbouring female, by whom she was cited before a magistrate, who threatened a farther prosecution at the ensuing sessions. In order to avoid this disgrace, she took to flight, and wandered about for some days, without any fixed design or resolution. At length she came to the house of a peasant, with whom her brother had some acquaintance, and there she sojourned for some time, under various excuses, but without betraying the least symptom of melancholy. It was in this situation that she suddenly formed the resolution of assassinating her hostess's child, notwithstanding the many marks of hospitality and kindness which she had received at her hands. This was the infant which she murdered, and the following was the only reason she could offer for the sanguinary act. "The peasant's daughter was an *only child*—so was she herself an only child—and yet she was always very unhappy and unfortunate: The

child would most likely be so too, and, therefore she determined to take its life."

It came out in evidence on the trial, that this woman had, more than once during the preceding two years, exhibited symptoms of mental derangement, and means were taken to place her under restraint, but she had evaded this by flight. Afterwards she became apparently well, though somewhat reserved, and continued so up to the time of the citation before the magistrate, as above detailed. In a medical consultation, the prisoner was considered as guilty of murder, because she had shown a *premeditation* in the affair, and, consequently, that she was not protected by insanity, which they admitted to exist. The judges, however, were of a different opinion, and ordered her to be confined as a maniac. This happened in the year 1788, and it appears that a revolution has since taken place; for the medical profession, in France, have come to the proper way of thinking, while the judges and lawyers have reverted back to the less enlightened path of the Konigsberg physicians. It is clear, we think, that in this case, there was a *premeditation* founded on an *insane notion*, which greatly alters the case from a premeditation in a sane mind. Upon the whole, we consider the judges were right in their decision, though certainly it was a very nice point to decide.

6. *Case of Homicide.* We shall conclude this article on a melancholy but interesting subject, with the following particulars of a recent homicide.

On the 20th of May, 1825, Josephine Durand, a servant of the Sieur Mailfert, left her master's house early in the morning, and did not return till late at night. She was then asked if she had found another situation, which they supposed she had been seeking? She replied in the affirmative, and that the place would be a lasting one for her! All the evening she appeared greatly agitated, and next morning, on some questions being asked by her mistress, she confessed that she had murdered an infant the preceding evening. In a short time an alarm was spread that a child in the neighbourhood had disappeared. Josephine then set out, as she said, to deliver herself up to the magistrate. It appeared in evidence, as well as by the prisoner's confession, that the child, six years of age, had given its hand to the prisoner, who directed her course towards the fields, and although they were met by several persons, Josephine had always taken the precaution to guard her face from being seen. After some research, the child was found strangled in a field of rye, and covered over with a white table-cloth, which was proved to belong to the mistress of Josephine. She was therefore accused of the murder, and confessed the act.

It was proved that the prisoner not only strangled the child, but took from the person of the deceased some gold ornaments which she wore. This also the prisoner confessed. It was ascertained (from the prisoner's own confession) that she had kept the child full an hour in the rye-field, before she had strangled her. Josephine was therefore put upon her trial for the double crime of murder and theft.

The prisoner, who was 23 years of age, heard the accusation read, without exhibiting any particular emotion, and replied to all interrogatories with clearness and precision. Several witnesses, however, proved that the prisoner had been subject to epileptic or rather hysterical attacks, and that she was thought sometimes to be rather deranged in mind. This last part was not clearly substantiated. The advocate-general charged the jury to find the prisoner guilty, as there was no proof of insanity, and as it would be opening a dangerous door to guilt, if they acquitted her of such a crime, under the circumstances which came out on the trial. Her counsel, M. Talon, made a most admirable and ingenious defence, and, we have no doubt, saved the young woman's life. The advocate made a powerful appeal to the feelings of Frenchmen, by asking them if they would place a stain on their country, by believing that France could produce such a monster as Josephine appeared to be, if she committed the act in her proper senses. This last appeal seems to have turned the scale in favour of the prisoner. The jury found Josephine guilty of committing homicide on the person of Victorine Houille—"but involuntarily and without premeditation"—"mais *sans volonte* et *sans premeditation.*" That the homicide had been accompanied by abduction of property ("soustraction") but *not fraudulent* abduction; and that the act was not committed on the public high-way.

By this verdict, the prisoner was acquitted of the accusation; but the minister ordered the prisoner to be detained in a place of safety, till the state of her mind could be satisfactorily ascertained.

M. Georget thinks that Josephine was in a state of mental imbecility rather than insanity, in consequence of which, she had not sufficiently distinct notions of right and wrong. He believes that she committed the homicide for the purpose of effecting the theft, which, under other circumstances would aggravate the crime. "In confining this individual," says he, "for life, the public safety was sufficiently secured—to have put her to death, would not have prevented similar acts of homicide on the part of others."

The verdict was singularly merciful, compared with some of those which we have here put on record, and where insanity was unequivocal. Perhaps, however, it was erring (if erring) on the right side. Seclusion for life is punishment enough for almost any crime, and more severe, we imagine, than death, while it is (however paradoxical) more humane. It secures the public from any danger, as far as the individual is concerned—it gives the prisoner time for meditation and repentance—and prevents those horrified feelings inseparable from public executions, and which we verily believe, tend to harden the guilty rather than prevent guilt.

12. CHRONIC ULCER IN THE STOMACH.

We have lately recorded some instances of chronic ulcers in the stomach, unattended by any well-marked symptoms, till the bottom of the ulcer gave way, and permitted extravasation of the gastric

contents. Mr. Hunter, of Mincing Lane, has lately added another case to the list, as published in the January number of the Medical and Physical Journal.

A married female, so corpulent that she thought herself dropsical, and who appears to have been thought so by her physician—had complained of pain occasionally at the navel, for four years previously. This, however, did not prevent her attendance to her domestic affairs, and her spirits were good, as was her appetite. On the 16th August, 1826, after eating a very hearty dinner, she was suddenly taken ill with severe pain in the umbilical region, attended with exquisite tenderness of the part. The pulse was but little affected. After taking 30 drops of laudanum she vomited a quart of fluids and half-digested substances, but without any material relief. Opium in considerable quantities, venesection, blisters and other remedies, were employed in vain, and she expired in 30 hours from the attack.

On dissection, an ulcer was found near the lesser curvature of the stomach, about two-thirds of an inch in diameter, and partly surrounded internally with thickened, white, and shining edges. This had opened, and permitted the contents of the stomach to pass out into the abdomen, thereby occasioning the fatal catastrophe. The heart, as well as other parts of the body, was loaded with fat.

It is not a little remarkable that ulcers will continue for years in the stomach occasioning but little disturbance, comparatively speaking; while in other individuals, the most trifling irritation of that organ will throw the whole system into confusion.

13. DYSMENORRHŒA.

Dr. William Campbell has favoured the public with an elaborate dissertation on this complaint, in the January number of the Edinburgh Journal of Medical Science, in which considerable erudition and research are evinced. On this, as on many other occasions, the conflicting opinions of ancients and moderns do not much elucidate either the pathology or treatment of the complaint, and the doctor's own observations, contained in one or two pages at the end, are worth the whole of the researches that occupy so many pages in the beginning. For our own parts, we entertain so much respect for Dame Nature, that we are not very fond of officiously interfering in trifling, or even considerable deviations from the ordinary course of menstruation, unless it appears that the general health, or the patient's own feelings are suffering severely from the irregularity. Dysmenorrhœa, and even emansio mensium, are more frequently the consequences than the causes of bad health. But this is not a popular doctrine, either in or out of the profession, as the following passage will show.

"In 1822, a young lady, 19 years of age, of tall stature, healthy constitution, and void of every complaint, except a voracious appetite, was, by the advice of a surgeon in high estimation, *first*, heartily ducked once daily, on the sea-beach for a summer season to strengthen

her—*secondly*, stewed in a warm bath, *for several months*, to relax her—and *thirdly*, made to swallow for some time daily, such a proportion of carbonate of iron, as would almost have led one to think that she was compelled to use it as a substitute for oatmeal. Why all this professional purgatory? Because the lady's catamenia had not made their appearance! To show that the lady had an excellent constitution, and could therefore require no medicines, she withstood those *violent attempts on her person*, without any injury to her health."

It must be confessed, however, that medical men are often so importuned by mothers and nurses, as to be forced to prescribe where they had rather let nature alone. In such cases, they should avoid heroic remedies.

Dr. C. observes that our indications, in dysmenorrhœa, are, *first*, to diminish pain and local irritation during the presence of the catamenia: and *secondly*, to adopt means, during the intervals of menstruation, for the removal of that condition of the uterine or general system on which dysmenorrhœa depends. For the first object, Dr. C. recommends that from four to six leeches should be applied to each groin, on the immediate approach of pain, and the bleeding promoted by warm fomentations. Warm injections per vaginam and the hip-bath are serviceable, though the former is seldom complied with, in this country. In respect to opium and hyosciamus, Dr. C. avers that the former is sometimes hurtful, and the latter inert and useless. He has found a full dose (3ss.) of camphor, very effectual; especially if aided by injections of assafœtida. When the catamenia begin to cease, warm injections, *per vaginam*, are very serviceable. In full plethoric habits, where the catamenia are sufficient in quantity, but attended with pain and spasm, warm clothing, the hip-bath, quietude, and two or three doses of a few grains of calomel at night, with phosphate of soda in the morning, should precede the period. Sexual intercourse should be forbidden, where the dysmenorrhœa is produced by unusual irritation of the uterine system.

In cases of debility, or torpor of the uterine system, as it is called, Dr. C. has never obtained *much* advantage from the mineral tonics or stimuli. He speaks more favourably of the vegetable world—as the colombo, gentian, quassia, or cinchona, with a moderate proportion of claret or madeira, and a proper degree of exercise, as riding and dancing—"particularly that form of it termed *waltzing*." We think certain gymnastic exercises would be more convenient as well as more effectual in such cases. Electricity, sulphureous waters, aloetic aperients, &c. are occasionally beneficial in these states.

The ergot of rye has been exhibited by Dr. C. in three cases. In one of these, the patient was a widow, who had aborted fourteen or fifteen years previously, and, ever since that accident, her catamenia had been very sparing, and secreted with great pain, although regularly as to time. She was in the habit of passing "substances of a cutaneous texture," during the catamenial nisus. The uterus was scirrhous. In one of these painful periods the ergot was adminis-

tered (3j. boiled in four ounces of water to two ounces) in decoction. The pains were slightly mitigated. She took half an ounce of this decoction daily, during the next interval, and then menstruated without any pain. The results of the other two cases are not stated. The ergot is deserving of further trial.

14. EXTRA-UTERINE FŒTUS.

Mr. Mackie, surgeon, Demerary, has communicated to us the particulars of a very curious case of this kind, the full details of which will be found in our contemporary, the Medical and Physical Journal, of this month.

On the 9th October, 1826, a negress, 40 years of age, was admitted into the Lying-in-Hospital of the Plantation, RICHMOND HILL, Leguan Island, for confinement of her twelfth child. Next day, the medical attendant of the estate was summoned, as the nurse thought the labour was going on slow. On examination, per vaginam, he concluded the labour had not yet commenced, as no change in the parts had taken place. The 11th, found the patient with slight labour pains, and she complained of numbness in the lower extremities. The head of the child could be felt distinctly resting on the pubes—the os tincæ could not be touched by the finger. The patient was otherwise in good health and spirits. At 7 in the evening of this day, while the patient was in a half-sitting half reclining posture, her extremities became suddenly cold, and, without complaining of any pain, she expired in a slight convulsion.

An incision was immediately made from the umbilicus downwards to the pubes, when a full-grown male fœtus, with its umbilical cord and placenta, was protruded with considerable force. The child was perfect in every part, and was of rather a large size. It was not enclosed in any membrane or sac, nor could any connexion be traced between the fœtus or placenta and any of the abdominal viscera! The uterus was in its natural position, and about the size of that organ in the third month of pregnancy. Not the slightest trace of rupture of the womb could be discovered. Both the fœtus and the uterus are preserved, and now in the possession of Mr. Mackie.

A more rigid scrutiny would have discovered, we should imagine, the place where the placenta was attached; but even so, the case is a very curious one, and may furnish food for reflection.

15. M. PIORRY'S PLEXIMETRE.

M. Piorry has announced that, by means of a small pallet of ivory placed on any part of the abdomen or thorax, he has been enabled to turn percussion to a much better account than has yet been done; the sound emitted by the portions thus covered by the ivory pallet, being much clearer and more indicative of the actual state of the parts underneath, than when these parts are stricken by the fingers in the usual way. M. Piorry has made more than 80

experiments on the living and dead subject, healthy and diseased. By means of this intervention, sound may be elicited from the thorax, even when the integuments are œdematous. The extent of pleuritic effusions may be ascertained with great exactness. Hepatisation, and also a tuberculated condition of the lungs can be more readily detected in this way than by simple percussion. But it is in the abdominal region that the pleximetre promises to be of most service. The extent which any solid organ, as the liver, occupies—that of tumours—watery effusions, &c. may be easily ascertained by the difference of sound on percussion of the tablet instead of the naked parietes. Even the quantity of fluid in the stomach or intestines can be appreciated. The state of the uterus (when pregnant) can be also correctly estimated through the medium of the pleximetre.

If discoveries go on in this manner for half a century more, there will be little occasion for the ancient desideratum—a glass window in the breast—to see what is going on within.

16. INTESTINAL ULCERATION AND HÆMORRHAGE.

For many years past we have been anxiously directing the attention of our brethren to the state of the intestinal canal in fever. We have had but too many opportunities of observing how superficially the examination of bodies is conducted, especially in regard to the mucous membranes—and how often the diseases of these parts are overlooked. The profession is much indebted to Dr. Hewett, of St. George's Hospital, a most able, zealous, and liberal minded physician, for directing the attention of practitioners in this country, to the state of the gastro-intestinal mucous membrane in fever. We are convinced that the more minutely the dissections, in fatal cases of fever, are performed, the more frequently will Dr. Hewett's observations be found correct. We shall now relate some particulars of an interesting case which lately came under our observation, in illustration of these preliminary remarks.

A fine young man, a Law Student, aged about twenty-one years, became affected with common fever in the beginning of December, 1826, and was under the care of Mr. Bampfield of Bedford-street, Covent-garden. The fever ran on for more than a month; but convalescence had at length apparently commenced, and the patient's appetite was returning without any obvious organic affection having been produced by the protracted fever. About the end of the first week in January, 1827, and without any apparent cause, a sudden and extensive hæmorrhage from the bowels took place, and this continued to recur daily for eight days in succession, when the writer of this article was called into consultation. On examination, the pulse was found to be from 90 to 100, and rather weak—the tongue slightly furred in the middle, but red at the tip and sides—skin of natural temperature, and without perspiration—mental faculties clear—respiration natural. The abdomen was carefully examined. There was slight tenderness in some places, but no distinct pain. The abdominal muscles, however, were always tense,

whenever the hand was placed on the belly. He had passed in the preceding 24 hours about two pints of blood, without any coagula, mixed with watery fluids, but without any fæcal matters or smell. No real fæculence was seen by Mr. Bampfield in the stools for the preceding week; and the patient lost at least 20 or 24 ounces of blood daily during that period. Superacetate of lead and opium were given for three or four times, and then a gentle aperient. This made little alteration in the discharge. Two half-drachm doses of oil of turpentine were then given. The first dose came up, the second was retained. For two days, the blood disappeared from the stools, and some traces of fæculence were observed in the liquid motions. The hæmorrhage then returned. After exhibiting various remedies, the hæmorrhage again stopped, or nearly so, for three days, and decided proofs of fæculence were in the motions. It was now fondly hoped that the danger was over; but in the midst of these promising appearances, the patient was suddenly seized with a great prostration of strength, and died in the course of a few hours—about sixteen days from the commencement of the intestinal hæmorrhage.

The suddenness of the death induced the writer to suppose that ulceration had existed in some part of the intestinal canal, and that perforation of the bowel had taken place, with extravasation of fæcal matters into the general cavity. Part of this prognostication was true, and part was false. On examination, in presence of Mr. Brookes, surgeon, and Mr. Owen, his assistant, a series of ulcerations were found in the ileum, varying in extent from the size of a split pea to that of a half-crown piece,—and from a slight abrasion of the mucous membrane, to complete destruction of all the coats, except merely a pellicle of peritoneum, through which boundary the ulceration had not passed. The ulcers gradually increased in size and depth as the ileo-cæcal valve was approached, where they occupied nearly the whole circle of gut. There was no ulceration above or below the intestinum ileum.

Now we need hardly say that these ulcerations were formed during the fever, and that from these the hæmorrhage proceeded, when the fever was, in fact, over, and convalescence was apparently commencing. Yet here had been no diarrhœa—no pain complained of in the abdomen,—and scarcely any tenderness on pressure, up to the very day of the patient's death. Had the hæmorrhage not taken place, and the patient died, who would have suspected intestinal ulceration?—very few, we believe. The case offers an instructive lesson—namely, that gastro-enteritic inflammation, and even ulceration, may be going on in fever, without any obvious or well-marked symptom to indicate its existence. A superficial examination of the abdomen, after death, without opening the intestinal canal itself, would not have revealed the true state of things—for in many plaaes where there was serous ulceration of the mucous membrane, there was little alteration in the appearance of the external surface. We hope this example will induce practitioners to suspect the existence of gastro-enteritis in fevers, where the symptoms are equivocal—and to carefully examine the *internal* sur-

face of the alimentary canal where an opportunity of dissection is given.*

The case was attended, during the latter days of the patient's life, by Mr. Brookes (Mr. Bampfield's successor) in company with the reporter.

17. EXTRACT OF BALS. COPAIBÆ IN GONORRHŒA.†

Surgeons are well aware that the balsam of copaiba would be often successful in gonorrhœa, if they could prevail on their patients to continue its use for a certain time. But this they rarely can do, from the nauseous taste of the medicine, and its effects on the stomach and bowels. It would be extremely desirable that the article could be deprived of its disagreeable qualities, without injury to its medicinal; and this Mr. Thorn thinks he has done by the preparation of a resinous extract, from which the essential oil, possesing the obnoxious part of the balsam, is separated. The remaining extract is supposed to contain "all the virtues of the copaiba."

Mr. Thorn divides gonorrhœa into three stages—1st. that which occurs within twenty-four hours of the first appearance of the symptoms:—the 2d, is when the inflammatory symptoms are fully established—and the third is, when the inflammation has ceased, the membrane of the urethra being in a state of atony, and the only symptom being a thin mucous discharge.

Medical men have generally been afraid to exhibit the bals. copaib. in the second, or inflammatory stage, and the first stage has often elapsed before they are consulted. It is in the first two stages, that the extract of copaiba has been found most advantageous. Mr. Thorn has related one case where the disease was cured in a couple of days, when the medicine was given in doses of fifteen grains to a scruple thrice daily. In the inflammatory stage, unless there were symptoms indicative of approaching swelled testicle, he has not hesitated to give the extract in doses of ten or fifteen grains thrice a day. In no case has he found it produce any other effect than that of relieving the scalding, and frequently doing away with this symptom in a short time. The medicine should, of course, be continued for a few days after all the symptoms are gone. Mr. Thorn very properly combines the depletory treatment and cooling regimen with the exhibition of the medicine.

In the third stage, that of gleet, too often dependent on some alteration of structure in the mucous membrane of the urethra, the extract of copaiba has not proved so useful. Our author speaks favourably of an injection composed of one drachm of extractum tormentillæ to six ounces of water. It has been used with advantage by Mr. Tyrell, of St. Thomas's Hospital, and also by Mr.

* We beg the reader to refer to the first article in this Number, page 327, proposition 136, for an explanation of some remarkable phenomena in the above case, especially the want of pain on pressure of the abdomen.—*Ed.*

† Mr. Thorn's Observations on the Treatment of Gonorrhœa, 8vo. pp. 57. 1827.

Alcock. Several cases have been communicated to our author, and are here published, from Mr. Tyrell, corroborating the efficacy of the extract of copaiba in gonorrhœa. The medicine is prepared by Philip and Co. 62, Quadrant, Regent-street. We think the surgical profession are indebted to Mr. Thorn for thus early and candidly communicating the results of his experience with the extract of copaiba.

18. CARBONATE OF IRON IN NEURALGIC AFFECTIONS.

This preparation is daily increasing in fame, and we are convinced that it will prove one of the most valuable medicines in the pharmacopœia, for very many of those anomalous and painful affections of nerves, where no vascular excitement obtains. Two cases are reported in No. 174 of the LANCET, from the hospital practice of Dr. Elliotson, of which we shall take a very concise notice.

1. The first was that of a female, 33 years of age, who had suffered for three months with a violent pain in one of her legs, commencing in the great toe, running along the inside of the tibia to the ham, the groin, and across the lower part of the abdomen round to the loins. It came on rapidly, especially by pressure or friction, and was of a shooting or stabbing kind. She was ordered the carbonate of iron, *two drachms* every six hours. In five days the pain was relieved, and the medicine was continued for a fortnight longer, when the improvement not being progressive, she was ordered *half an ounce* thrice a day. In three weeks more she was reported "quite well."

2. The second case was rather more puzzling, and presented some of the phenomena of angina pectoris. The patient was also a female, 36 years of age, who had suffered for seven months with violent pain in the left side of the chest, occurring at intervals, and shooting from the region of the heart over the left breast, and sometimes down the arm, and backwards towards the spine. During the paroxysm she experienced dyspnœa, amounting to a sense of suffocation. Pressure or friction brought on the attacks, or even a deep inspiration; but the pain was never brought on by quick walking. The pulse was regular, and the stethoscope detected no organic disease of the heart. For two months she was bled, blistered, cupped, and took digitalis, colchicum, and prussic acid, without benefit. She was then ordered to take half an ounce of the carbonate of iron thrice a day, and in little more than a fortnight she was cured.

The symptoms of real angina pectoris *generally* depend either on ossification of the coronary arteries, imperfection of the valves of the heart, or on a peculiar softening of the muscular structure of the organ. In none of these cases have we ever seen much good, but frequently mischief, result from depletion or the use of sedative medicines, as digitalis, colchicum, &c. with the exception of opium. In the pseudo-angina pectoris, like the instance above detailed, we cannot expect benefit from depletion; and we much wonder

that so talented a physician as Dr. Elliotson should have persevered two months in such unfeasible measures, especially when he ascertained by the stethoscope that there was no organic disease of the heart. In these imitative cases, there is usually some nervous irritation, and a morbid susceptibility in some portion of the alimentary canal, and we conceive that the carbonate of iron removes this susceptibility by its tonic effects on the sentient extremities of the gastro-intestinal nerves. This susceptibility often returns, if the digestive function is not regulated, and the secretions kept in a good state.

19. GENERAL VASCULAR INFLAMMATION.

Considerable doubts have been lately thrown on the nature of those appearances in certain structures of the body (especially the internal surfaces of vessels and hollow viscera) which have currently passed as proofs of inflammation having existed during life. These doubts may be carried too far, and it is necessary for us to be on our guard against errors on either side of the question. The following cases communicated by Dr. Dommanget to the Societé de Medecine, are not without considerable interest.

Case 1. Francis Blanc, aged 25 years, a French soldier in the Madrid Garrison, was brought into the Military Hospital on the 20th September, 1823, having been ill for a fortnight in the neighbourhood of the Spanish capital. The pulse was strong and frequent—tongue red—great thirst—face suffused—conjunctivæ injected—breathing precipitous and impeded—dry cough. On percussion, the chest sounded very dull—there was a burning heat at the epigastrium, and indeed over most parts of the body. Venesection to *eight ounces*—emulsions—cold applications to the abdomen, and warm fomentations to the chest. 21st. The thoracic symptoms were diminished—those of the abdomen continued. Thirty-six leeches to the epigastrium. In the evening something better—tongue less red—frequency of pulse abated. 22d. The patient was better; but during some devotional exertions, he became suddenly worse. The gastro-intestinal phlegmasia increased rapidly, accompanied by sympathetic affection of the head, rising to delirium, requiring some men to confine the patient in bed. The tongue got dry—the thirst inextinguishable—the eyes sparkling—delirium loquax. 23d. Same condition. Thirty leeches to the epigastrium and tract of the jugulars. Ice to the head—warm fomentations to the abdomen. 24th. No alterations in the state of the pulse. In the evening the patient got some wine clandestinely, immediately after which the delirium was greatly exasperated, and a strait-waistcoat was applied. 25th. No material change. Forty leeches were applied to the epigastrium and neck—cold to the head continued. 26th. The patient is more calm; but the force of the pulse is nowise abated. He passed black blood by stool, in some quantity. 27th and 28th. Same state continued. 29th. The delirium is now changed to coma, with a kind of periodical trismus. The pulse is

still unabated. Colliquative diarrhœa added to the other symptoms. In this deplorable condition the unfortunate patient continued two days, and then expired.

Dissection. There was some effusion between the membranes—opacity and thickening of the arachnoid—softening of the cortical substance of the brain—water in the ventricles. The same conditions were observable in the spinal canal, which was entirely opened. The lungs appeared sound exteriorly, but the parenchymatous structure showed many points of chronic inflammation, and some crude tubercles. The mucous membrane of the lungs was extensively inflamed, and the bronchia filled with viscid mucus. The pericardium adhered in some places to the pleura of the lungs. The heart was pale, and its structure flaccid. "The ventricles and auricles were evidently inflamed, as were the mitral and tricuspid valves." The arteries, at their origin from the heart, were of a cherry-red colour, which extended, in the pulmonary artery, to its divisions and subdivisions—in the aorta, to its iliac bifurcation. The carotids, jugulars, and subclavian vessels were all inflamed—and the appearances of inflammation could not be washed off by repeated lavations. There were several marks of phlogosis in the mucous membrane of the stomach and bowels. Near the cæcum there were ulcerations to a great extent, with tumefaction of the mesentric glands. Some of these were as large as pigeon's eggs, and degenerated into a melanose structure. In the colon were numerous marks of inflammation—several vestiges of cicatrised ulcers—and many ulcerations still open. There were several other morbid appearances in the body, but none of them apparently connected with the immediate death of the patient. There were, however, marks of inflammatory action in almost every part of the body—even in the joints, absorbent glands, &c.

Remarks. Our author has never seen or read of an instance presenting proofs of such universal inflammation, as this case afforded. Perhaps indeed, if examinations were made more minutely, there would be found more general tokens of a phlogosed state in those who die of diseases with great excitement. The interior surfaces of the vessels—the spinal marrow—the ganglia—the glandular system, are but rarely examined, on account of the time necessary for such investigations. In the present case, our author thinks he might be justified in concluding that there was a general phlogistic diathesis; but he considers it more correct to conclude that the inflammation began in one organ or class of parts, and involved others in succession. "It appears to me that the inflammatory process commenced in the mucous membrane of the digestive tube and respiratory apparatus, and was thence propagated by sympathetic association, to the heart and the brain—and finally that, from these last centres of vitality, the phlogosis was extended to the various structures dependent on them, or connected with them."

Case 2. A fusileer in the eighth regiment of Swiss Guards, aged 23 years, entered the Military Hospital of Madrid on the 31st of January, and died on the 8th of March. The following were the

principal phenomena presented to the observation of Dr. Antonini, who was then in charge of the Military Hospital. When he was first received, the skin was of a yellowish tint—eyes sunk—head inclining forward—some infiltration in the abdomen and lower extremities—sense of oppression in the chest, with difficulty of breathing—dull sound over a considerable extent of this quarter—pulse rather quicker than natural, but hard, full, and strong—inability to lie in any other posture than on the back—sleep very disturbed. This still continued, with some trifling variations, till the last; but never prevented the patient from getting up in the day time—even on the day of his decease. The treatment was chiefly directed towards the affection of the chest, which was considered as the principal seat of disease. With this view, general bleeding was several times practised, as well as leechings and blisterings. These produced some relief for a time only. Debility gradually increased—but the state of the pulse above-mentioned never altered, which led to the prognosis that there was inflammation of the sanguiferous vessels, and that the patient would be lost.

Dissection. The chest sounded dull in almost all parts of its circumference. The dura mater was slightly injected, and a considerable portion of the arachnoid was opaque. No other alteration in any part of the brain. The coverings of the spinal marrow presented unequivocal marks of intense inflammation. Some portions of the medulla spinalis were softened, and there was considerable serous effusion between it and the membranes. The cellular tissue enveloping the large nervous trunks, as they issued from the spine, was inflamed, but the neurilema itself, and the medullary structure were apparently sound. In the chest there were about two pints (French) of serous effusion—lungs studded with tubercles (some of which were suppurated) and gorged with blood—larynx, trachea, and bronchia inflamed. There was considerable effusion in the pericardium—cavities of the heart filled with black blood—lining membrane of the chambers of an intensely red colour, which extended into the great vessels. The aorta and its branches, as far even as the popliteal artery, were inflamed. The carotids presented the same appearance, and the arteries of the upper extremities, near to the wrist, showed similar phenomena. The corresponding veins were equally red and inflamed. The vessels of the short circulation presented the same appearances as those of the general circulation. Our author did not conclude that the red colour was proof of phlogosis till after numerous fruitless attempts had been made to obliterate it by washing.* In the mucous membrane of the stomach and bowels were many traces of chronic and acute inflammation. Large ulcerations and erosions were found in the neighbourhood of the ileo-cæcal valve. The liver was enlarged, and greatly degenerated in structure. The various other traces of disease we shall pass over, as of inferior importance.

Remarks. The first thing in this case which our author notices is

* Our readers will see in this number some important observations on the fallacy of post-mortem appearances in the vascular system especially.

the fact of the pulse never having been reduced by the numerous bleedings which were practised. This symptom, he thinks, will one day be acknowledged, in conjunction at least with others, as characteristic of inflammation of the blood-vessels. But as in this disease there are generally a great many other lesions going forward, the diagnosis will be always difficult. The softening of the spinal marrow in this case was a very unexpected occurrence, as the patient walked about the ward, even on the very day of his death! There was no paralysis—and the debility of muscle was not greater than might have been expected in a chronic disease of the same standing. This is one of the mysteries of the nervous system, which it would be difficult to unveil.

20. ON PURGATION, AS A REMEDY IN DISEASES.*

The intercourse between nations, like that between individuals, tends to the mutual advantage of both parties, by rubbing off the rust from either. Men are much more keen in detecting the errors of others than of themselves—and seldom very backward in portraying them to the world. In this way the Continental and British practitioners have been, for many years past, keeping up a kind of critical warfare respecting purgation, as a remedial agent, in many diseases, and especially in febrile affections. In England, since the first appearance of Dr. Hamilton's book, the sale of purgative medicines has been quadrupled, and hypercatharsis has long been the order of the day. In France, and in many other parts of the continent, the doctrines of Broussais have produced a kind of cathairophobia, or universal dread of purgation, in consequence of the real or supposed inflammation of the mucous membrane in many diseases, and the morbid appearances which that tissue so often presents after death. Every unprejudiced and attentive observer must see that the two extremes into which men have run, in this respect, on the north and south sides of the English channel, where attended with positive mischief in practice. The free intercourse between the two countries is now beginning to correct the errors of both. The increased and increasing attention to the pathology of the mucous membranes, in the British Isles, is checking considerably the mania for unbounded purgation here; and the good effects which the English have so long attributed to this measure, are opening the eyes of the French to the "utility and administration of purgative medicines." A late edition of Dr. Hamilton's work has just been translated into French, by M. Lafisse, and has given rise to many a hearty laugh at John Bull's *cathairo-mania*, in the French Journals and medical coteries. In a very sensible and favourable review of this translation, [Revue Medicale for December,] the reviewer observes:—"The work of Dr. Hamilton has run through seven editions in the course of a few years, in England. Is the translation of the work likely to

* Dr. Hamilton's Observations on Purgative Medicines in several Diseases. Eighth Edition, Ed. 1826.

meet with similar success in France? assuredly not. Will this want of success prove that the work is worth nothing? No, doubtless. It will only prove that the theories of the English and French schools are very different.* How, in fact, can a work which recommends the employment, nay the *abuse* of purgatives, in cases where the majority of French physicians hold these medicines to be most destructive, hope for a patient perusal; at a time too, when the aversion to purgatives is often carried to the most ridiculous extremes?"

In the course of the critique, the French reviewer, (M. Tavernier) makes many judicious reflections on Dr. Hamilton's work; and he fairly admits that the translation of it into the French language, will have the good effect of awakening the attention of continental physicians to the utility of moderate purgation in many diseases, from the treatment of which, this measure is now banished by a blind and unreasonable prejudice. We cannot help quoting the concluding passage of the review, as it may afford some entertainment to our readers.

"Ah! if French physicians should adopt the practice of Dr. Hamilton, what a number of people will consider it as the regeneration of medicine in this country! With what exultation will the whole class of pharmacopolists view the termination of a calamitous revolution, by which their shops have been left deserted, and their drugs allowed to rot! If purgation should come into vogue, what will become of the poor leeches?"

We must now dedicate a few pages to this last edition of Dr. Hamilton's work, in which the author has introduced a new chapter "on cold-bathing, considered in its purgative effect, in fever, dyspepsia, cholera, tetanus, and in the treatment of infants."

Our author sets out with questioning the truth of the general opinion, "that the efficacy of cold-bathing proceeds exclusively from its tonic or bracing powers." "Till cases," says he, "of direct debility are ascertained to exist, and to which this tonic power is applicable, and while other circumstances readily explain the influence of the cold-bath in the cure and prevention of some diseases, it will not be unreasonable to suspend our assent to a supposition which, in its narrow and limited view, sanctions the indiscriminate view af cold-bathing."

"An occasional interchange of their functions is a consequence of the connexion which subsists among the excretory organs of the body," page 11. To this interchange it is owing that different applications to the surface move the belly. Among these, that of cold water is conspicuous, whether it be made by sponging, affusion, or by resort to the cold-bath.

"Pathological facts, and the experience of those who, enjoying good health, bathe for amusement, prove the alvine evacuation to be promoted by the aspersion of, or by immersion into cold water. This effect, how greatly soever it merits attention, and however much it ought to regulate the practice of cold-bathing, both in health and in disease, has been, in a great measure, if not altogether, over-

looked by late writers on the popular and interesting subject of the application of cold water to the surface of the body." 160.

To this obvious effect on the alimentary canal, the benefit derived in fever (Dr. H. thinks) from sponging with, or from the affusion of cold water, may, in part at least, be attributed. The influence of a favourite theory over the best regulated mind, will be easily seen from the following passage, in which there is a mixture of fact and hypothesis. The *latter* we cannot help considering as greatly overstrained.

"An agreeable sensation of coolness, a lowering of the pulse, a disposition to sleep, and to perspire, are the immediate consequences. Abatement of sickness, of anxiety, and thirst, and cleaning of the loaded tongue, are the subsequent effects of the impression made on the surface. By this the peristaltic movement of the intestines, retarded or suspended during the febrile state is excited, and accumulated, and noxious fæces are propelled and evacuated. The repetition of the sponging or affusion, as is generally practised, promotes the further expulsion of fæces; at any rate it will co-operate with mild purgatives, and secure daily a moderate alvine evacuation, so necessary at all times to the well conducting the cure of fever." 160.

In this passage Dr. H. evidently underrates the influence of cold on the surface, as affecting the nervous system generally, and lowering the excitement of the heart and blood-vessels. Our own observations would lead us to attribute extremely little influence to the sponging as a purgative in fever. Indeed we have rarely witnessed any decided effect of this kind on the intestinal canal, although we are ready to grant the intimate sympathy which exists between the mucous membranes and the skin.

In respect to dyspepsia, our author differs (and with good reason) from Dr. Cullen, who looked upon the disease as depending on—"imbecility, loss of tone, and weakness of the muscular fibres of the stomach." These three states of the muscular fibres are, in fact, all the same—for what is imbecility but weakness—what is weakness but loss of tone? And yet we do contend that this is not at all the proximate cause of dyspepsia, as Dr. Cullen would have discovered, had he ever laboured under the disease. It is far too mechanical a proximate cause. The nervous power, and the state of the gastric juice, (so much dependent on the nerves,) must be taken into account. The muscular fibres of the stomach can only be instrumental in moving forward the layers or strata of digested matters towards the pylorus, and finally discharging the chyme through that portal. They can have no influence on the digestion itself. We agree, however, with Dr. Hamilton, that this doctrine of muscular debility in the stomach has had a pernicious influence on medical practice, as leading to the routine of "tonic medicines, bitters, astringents, and chalybeates," as well as antispasmodics and opiates. We agree with him also, in the opinion that these medicines, so indiscriminately employed, "often disappoint expectation, and by protracted use aggravate the *supposed* loss of tone, in place of

remedying it." Dr. Hamilton, of course, in consonance with his favourite theory, attributes the good effects of the cold-bath in dyspepsia, to its power of opening the bowels.

"Among other tonics, operating, as it is supposed, upon the general system, and through it upon the weakened muscular fibres of the stomach, the cold-bath is mentioned. Much dependence is placed upon it, and justly so; but not, in my opinion, on account of its more than doubtful tonic powers, but on account of the impression made on the surface being communicated to the bowels, by which their languid action is excited, with a propensity to evacuate their retained contents." 163.

Whatever may be the *modus operandi* of the cold-bath, and more especially the shower-bath, the fact of its utility in dyspepsia is unquestionable; but we would beg leave to observe that there are stages and states of dyspepsia, in which the shock of the cold-bath would be dangerous, and where the tepid bath is of far greater utility. The improvement of function in the stomach and bowels, through sympathy with the skin, admits of explanation without recourse to the purgative effects of cold applied to the surface.

Without admitting fully Dr. Hamilton's theory, we agree with him practically, respecting the advantages derived from sponging regularly with cold water in tropical and other hot climates. This practice tends to counteract the deleterious effects of a high temperature on the human frame. But Dr. Hamilton is quite mistaken when he supposes that the bowels become constipated in proportion as the perspiratory process is increased when we first enter a tropical climate. The case is just the reverse. So much for the speculations of the closet.

Dr. Hamilton enters his caveat against the practice of plunging infants into cold water with the view of rendering them hardy. He observes that it requires only moderately warm clothing, a sufficient supply of light nourishing food, and free access at all times to pure air, that the child may continue in health and grow in strength. If by bathing, the important process of *ablution* only be kept in view, "it will be accomplished more effectually and safely by employing warm water, in which the child delights, and in which he loves to linger." In this sentence we are not inclined to agree with our author. We would prefer the mode, which we have often adopted and seen adopted, of first sponging or immersing with warm water, and then with cold. The prior application of the warm water brings the blood to the superficial capillaries, and enables the individual to resist the shock of the cold application infinitely better than if no previous heat be employed. One of the most important objects of cold-bathing or sponging, is the insusceptibility to atmospheric impressions which results from the practice. The insusceptibility is more certainly secured, and to a still greater amount, if the application of heat be previously made. The value of such a state of constitution in this climate will be readily appreciated. We know many people who preserve themselves from colds and coughs by

this piece of hygiene. Among others, we may mention Sir Richard Phillips, a well-known character, who has not eaten any thing that ever possessed animal life for forty years past. He attributes in a great degree, (we had it from his own mouth a few weeks ago,) the excellence of his health and his complete immunity from colds, to the daily ablution of his whole body with *cold water*, the moment he gets out of a *warm bed*. By this practice his skin is kept in a state of unusual purity, and its functions in good order. In consequence of the extensive chain of sympathies between the cutaneous surface and the interior organs, his health is preserved, and he is rendered entirely insusceptible of catarrhal, rheumatic, and other affections that usually result from atmospherical vicissitudes.

Dr. Hamilton has properly adverted to the utility of raising the temperature of the body to a comfortable degree of warmth, by exercise, previous to the cold bath. We strongly advise those who are subject to face-aches, coryza, &c. to get into the habit of sponging the face and neck every morning with warm water, and then immediately with cold, as a powerful preservative from these complaints.

We do not deem it necessary to notice any other part of the present edition of Dr. Hamilton's work, as the book is universally known to, and read by, British practitioners. Although we do not go the full length of Dr. H.'s views respecting purgation, we have no doubt of the general utility of the measure, under the guidance of a judicious practitioner. It is not the use but the abuse of purgatives that is to be deprecated.

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21. EPILEPSY.

Mr. Scott, of Liverpool, has recently published two cases of this disease, one occurring in his own practice, the other in that of Dr. Briggs, both tending to prove the occasional benefit which may be derived from digitalis. His own patient was an untoward sample of mortality, being a boy nine years of age, and who had been nearly idiotic almost from birth. The head presented an unnatural form and appearance, and he had been epileptic for some years. The paroxysms were sometimes very frequent—many in the same day. By the long-continued administration of tincture of digitalis, which was occasionally carried to a considerable height, the boy became much better, the fits being rendered greatly milder and less frequent. At the end of the history, however, we find the youth by no means cured, nor is it very likely that he ever will, the cause of the disease being most likely organic, and within the cranium.

A long and very unconnected case is next related from the dispensary practice of Dr. Briggs; but the nature of the disease in this case is very uncertain, and the effects of digitalis too "magical," for one to place much reliance on the facts of the case, though we believe them to be faithfully stated by Dr. Briggs. The patient was 18 years of age, who, for more than three years, had been suffering

from hourly attacks of what were termed "swimmings in the head," attended with violent palpitation of the heart. His countenance appeared bloated, and he sat constantly in bed, for fear of being hurt by falling. Dr. Briggs merely ordered him a common digitalis pill, containing ¼ of a grain, to be taken four times a day. By this medicine he was much relieved, and in course of time, by perseverance and the aid of some other remedies, he was able to take to his father's trade, that of a tailor. As we said at the beginning, the nature of the disease was far from obvious. Dr. B. is inclined to view the cause as more in the head than in the heart:—we should feel disposed to take the opposite view of the chain of causation, and refer the "swimming of the head" to the inordinate action of the heart. Doctors, however, will differ.—*Ed. Journ. Jan.* 1827.

In the same journal, Mr. Gunn has related the particulars of a case of epilepsy cured by purgatives. The patient was an athletic lad, 20 years of age, who was seized on the night of March 22d, while asleep, with a violent "epileptic fit," which continued severe for more than an hour. He remained in a state of stupor for a considerable time afterwards, for which he was bled and blistered. On the 25th, in the morning, the convulsion returned, and when Mr. Gunn arrived he found the patient lying comatose, with symptoms of accumulation of blood in the head—the breathing laborious—pulse 96, and full—eyes and face red—temporal arteries throbbing—tongue covered with a black crust—skin hot. Here we would ask Mr. Gunn whether this be the state which generally succeeds an epileptic seizure? The case was evidently one of *convulsions* from intestinal irritation, as will presently be shown, but it is improperly designated epilepsy.

He was now bled to 24 ounces, and another blister applied. A scruple of extract of colocynth and ten grains of calomel were administered—and calomel powders left to be taken every hour till the bowels should be well cleared. 26th. Has taken six calomel powders, in addition to the pills of colocynth and calomel—in all forty grains of calomel, with only the effect of one full alvine evacuation, "partly lumpy and particularly fetid." He is now tranquil, pulse 80—complete command of all his limbs. The tongue is furred, and he has a bad taste in his mouth. Was ordered 30 grains of the compound colocynth pill. Has had three pitchy stools. 27th. Had another paroxysm this morning, while asleep. He was ordered more purgative medicine. Mouth sore. 28th. Complains only of debility. Has had five pitchy stools. 29th. Two fetid evacuations, lumpy and dark. Had another violent convulsion last night. The purgation was continued, and he had only one more convulsion.

We think our readers will agree with us that these paroxysms were mere convulsions from the state of the bowels, and undeserving the name of epilepsy, which is not so easily cured as Mr. Gunn's case would induce the young practitioner to believe. The case, however, is valuable, as showing well the influence of intestinal irritation on the sensorium and its functions.

22 EXPERIMENTS ON DIGESTION.

In one of the American Journals of Medicine (the book has been overlaid, and we take the account from a continental journal into which it is copied*) there are some curious experiments, made on the stomach of a young Canadian, who was wounded in the abdomen by the discharge of a musket, and in whom a fistulous communication between the stomach and the skin existed afterwards. We shall pass over the particulars of the wound, and only state that the fistulous opening in the stomach had now continued for more than two years—that the opening was the size of a twenty-four sous piece—that the aliment taken into the stomach quickly escaped by this fistula, unless it was kept well defended by pad and compress—that the health of the young man was excellent, the appetite good, the digestion perfect, the body active, and the individual capable of every species of labour and exercise. He could at pleasure, disgorge the aliment from his stomach, by merely removing the pad and obturateur by which the fistula was closed.

Mr. Lovell, an army surgeon, of the United States' service, had attended the patient through the cure of his wound, and then made a series of experiments on his digestion.

"When," says Mr. L. "I removed the pad, it often happened that the internal membrane of the stomach was protruded in the form of a half-blown rose, and resembling that in colour. The patient (if patient he could be called) was able to reduce this herniary protrusion by slight presure, and without any pain. When San Martin (the young man's name) was lying on his right side, I could see into his stomach, perceive the movements of that organ, and follow, to a certain point, the different stages of digestion. I sometimes introduced water into his stomach, by means of a funnel, and solid food by means of a spoon. Afterwards I could draw them out by the aid of a syphon. I was also able to introduce pieces of meat, raw or dressed, as well as other species of aliment, tied by threads, the ends of which were kept outside. By these means I was enabled to make many curious experiments on the time necessary for the digestion of various nutritive substances. One time I introduced as a plug, or obturateur, a piece of raw beef. At the end of five hours, all that part which had gone inside of the stomach, was completely digested, and had disappeared. The division was as smooth as if it had been cut off by a knife. Every second or third day, a wine-glass full of gastric juice could be drawn off from the stomach, without any injury or pain to San Martin."

Exper. 1 On the 1st of Aug. at 12 o'clock in the day, we introduced into San Martin's stomach, the following substances, made fast by threads: viz. a piece of alamode-beef strongly spiced; a piece

* We may here remark, that it is particularly useful as well as proper, to give accurate references, as to sources of information. We have to complain of our continental brethren, in this respect, especially the French, who are extremely negligent as to reference.

of raw corned beef—a piece of fat bacon—a piece of fresh raw beef —ditto boiled—a piece of bread—a piece of raw cabbage stalk. Each article weighed about two drachms. After they were introduced into the stomach, San Martin continued his domestic occupations, as usual, within doors. In one hour after the introduction of the above materials, they proceeded to examine them. The cabbage stalk and the bread were about half-digested—the animal food had undergone no sensible change. All the articles were forthwith returned into the stomach. At the end of two hours, the cabbage, bread, and bacon, were entirely digested—the other aliments were little altered. At the expiration of three hours, the alamode beef was partly digested—the raw and corned beef was a little macerated on the surface, but its texture was nearly entire. The fluids of the stomach were somewhat rancid to the taste and smell. San Martin complained of some sense of uneasiness in the chest. At five o'clock he suffered much in his stomach—experienced a lassitude and general weakness, with head-ache. On drawing out the two bits of beef, they were found in nearly the same state as they were two hours previously—but the fluids of the stomach were still more rancid and acrid. The sufferings of San Martin prevented the re-introduction of the materials. The next morning, (2d Aug.) S. M. experienced nausea, head-ache, constipation of the bowels, depressed pulse, dry skin, coated tongue. The internal surface of the stomach, so far as it was visible, presented many white spots, like portions of coagulable lymph. Purgation was deemed necessary, and six calomel pills, of four grains each, were introduced through the fistula. In three hours they produced a full cathartic effect, and all the symptoms were dissipated, as well as the white specks in the stomach.

Exper. 2. On the 7th of August, at 11 o'clock in the forenoon, the tube of a thermometer was introduced into the stomach. In five minutes the mercury stood at 100° of Fah. and continued at that standard. By means of a gum-elastic syphon, one ounce of clear gastric juice was drawn off, into a phial capable of holding three ounces. A small piece of boiled beef was immersed in the fluid. The bottle was well corked, and placed in a temperature of 100°. In about 40 minutes the digestion had evidently commenced on the surface of the meat. At 50 minutes, the fluid in the phial became opaque and cloudy. The fibres of the meat began to be disengaged, and in one hour chyme seemed to be forming. At 1, p. m. the muscular fibres had diminished one half. At 5 o'clock, very few remained—and at 7, there was scarcely any visible trace of muscle. At nine the whole substance was completely dissolved. The solution had now the appearance of whey, and shortly afterwards a precipitate resembling the meat, in colour, fell to the bottom of the phial.

Exper. 3. On the same day, and at the same hour, a piece of meat, exactly the same size and kind as that placed in the phial, was introduced into the stomach, with a thread attached to it. At the end of

one hour, it presented nearly the same appearance as the piece in the bottle. At one o'clock, the thread came away, the meat appearing to have been entirely dissolved. The process in each case was the same, for the first hour; but afterwards the meat was much more quickly digested in the stomach than in the phial. In both cases, the digestion commenced at the surface of the meat, and seemed stationary there for a certain time. In the phial, gentle agitation seemed to quicken the solution, by presenting new points of surface for the contact of the gastric juice.

Exper. 4. On the 8th of August, at 9 o'clock in the morning, an ounce and a half of gastric juice was obtained and put into a phial. Two pieces of boiled chicken were suspended in the fluid by threads, and the bottle was placed in the temperature above-mentioned. A vigilant watch was kept on the whole. The digestion followed the same phases as in the second experiment, except that it was more slow. The chicken being a denser meat than the beef, the gastric juice could not insinuate itself so readily among its fibres. In other respects, the processes were precisely the same. After the digestion of the fowl, the fluid presented the appearance of milk rather than of whey, and the subsequent precipitate was of a whiter colour than that from the beef. The solutions of both were kept well corked, and in neither was there any mark of acidity or rancidity till the 6th of September following, when the beef solution exhaled a putrid odour, while that of the chicken was free from any disagreeable odour or taste.

The young Canadian was now tired of these experiments, and departed for his native place.

These experiments are curious. They are not different from what we might naturally expect, and they show that it is to the gastric juice we owe the mysterious process of digestion, and not to any action of the muscular fibres of the stomach. These muscles merely move forward the digested strata to the pyloric orifice, as was well shown by the experiments of Dr. Philip in the stomachs of rabbits. The effects of indigestion were satisfactorily demonstrated, when the farrago of various substances were introduced into San Martin's stomach. This experiment affords a useful lesson to the gourmand, who mixes a dozen of different kinds of viands in his stomach, regardless of the different degrees of digestibility in different substances.

23. WHITE MUSTARD SEED.*

We imagine that the author of this brochure has over-estimated the extent to which the employment of mustard seed has been carried. It *had* a great run, we know; but, like all other catholicons, it has nearly run its day. From numerous inquiries which we have made

* A letter on the Medical Employment of Mustard Seed. By a Member of the Royal College of Surgeons. 8vo, pp. 31, Dec. 1826.

at the shops where the nostrum is vended, we understand the sale of it is not now one fifth of what it was twelve months ago. The letter before us is written rather in a flippant style, and bears intrinsic proof of having been designed for a publication of equivocal respectability. But this is no business of ours. The author sets out with the narration of the case of a young girl who, being convalescent from a fever, was advised by a "talkative doctress in the neighbourhood," to swallow a quantity of the white mustard seed, by way of rapidly restoring her strength. She took six table-spoonfuls in one day, without its producing any evacuation from the bowels. The consequence was a distension of the abdomen, flushings of the face, febrile excitement, and want of sleep. Next day she persevered to the same extent, and with similar effects. On the third day our author saw her, when unequivocal symptoms of cerebral and abdominal inflammation were developed. Leeches to the abdomen, ice to the head, produced a temporary relief; but rigors came on, and she expired in the evening, having passed a considerable quantity of blood by stool, along with some of the mustard seed which she had swallowed. On dissection there was found general peritonitis, with some effusion of serum. When the ileum was slit open, a small jagged and ash-coloured ulcer was found, which had penetrated the mucous and muscular coats, and laid bare the peritoneal covering to the extent of a shilling, but without perforating it. There were several ulcers about the ileo-cæcal valve, and also in the track of the colon and rectum There were also marks of inflammation in the membranes of the brain.

Our author reasonably infers that these follicular ulcerations existed during the preceding fever—he thinks they were the cause of the fever—and that they would have healed had not the irritation of the mustard seed re-kindled the constitutional disturbance and local inflammation. Several other cases came to our author's notice or hearing, where bad effects resulted from the use of the remedy. But still, as the praises of the white mustard seed rang perpetually in his ears, and as he had been more than once reminded in practice of "his own unmeritorious exertions," which had been pushed aside to make way for the favoured nostrum, he determined "*to dive into its very essence*," and set the question of its merits at rest—at least in his own mind. Our author very properly commenced on his own person, he being then in a dyspeptic state, and consequently a fair subject for a trial of the panacea. With this view he did take to it—"at first kindly and quietly swallowing the seed whole, and in faithful compliance with the prescribed regulations." He disregarded the inconvenience which it produced, during the penance of a full three weeks, although it sadly aggravated all his dyspeptic symptoms which it promised to remove, "with an unvarying inclination rather to constipate, than unbind the bowels."

"It created generally (but more particularly as the dose was increased) that sensation between pain and pleasure, which arises from an over-abundant dinner; a feeling of dryness and heat along the intestinal canal, especially about the rectum, giving also to its

contents the most abominable fetor. And this odious property, I am convinced, in part, transpires through the cutaneous exhalents, as my person became not only offensive to others, but perceptibly so to myself." 15.

Our author owns that he should have slackened in his pace, even to a halt, had he not been led on by the assertion of an "*eminent physician*" that the white mustard seed was, in its operation, "*uniformly laxative.*"* . Our author now gradually augmented his daily potation of this "delectable trash," till finding the "stock of his amiability decline, even to the loss of temper," he made one desperate effort, "and engorged at a meal as much as sufficed him for breakfast and dinner." In proportion as the bulk was increased, "the flatulence, costiveness, and oppression were multiplied," and, at last, to such an unspeakable extent that had it not been for the assistance of a friendly seidlitz, he might have had good cause to rue the crusade in which he had embarked.

"If not the most painful, this was by far the most disagreeable experiment to which I ever submitted. The more than putrid disgust with which I was enveloped by the disengagement of sulphuretted hydrogen gas, not only rendered me entirely miserable, but personally loathsome to all who came within reach of its unsavoury influence. Any one fond of Mustard Seed for breakfast, may take a pound or more, and he will speedily be convinced that, instead of active purgation, the *faculty of distentiveness* is its chief characteristic." 17.

From personal and other experience then our author comes to the conclusion, that white mustard seed swallowed whole, or taken in any other way, "possesses no intrinsic property to make it worth the notice of the profession, or the invalid." The author censures Dr. Paris for borrowing the authority of M. Julia Fontenelle, respecting the *virtues* of white mustard seed, instead of writing from "actual observation." On this point we say nothing; but we cannot help animadverting not only on the severity but on the *error* of the following passage.

"This learned and distinguished Physician has lately put forth an

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* Against whom the following pungent note is levelled, we shall not pretend to divine, though it might not require the assistance of a witch to guess.

"The pitiable labours of the would-be author, are a continual disgrace to English medical literature. I mean of one whose only talent consists in dressing up in a new language the property of others, and then palming the miserable pilferings upon his brotherhood, as the fruits of his own industry. Let a student purchase half a dozen writers who have treated the same disease, (Dyspepsia for instance,) and he will find the greater part of each work occupied by the same anatomical and physiological history of digestion, and on coming to the point of a thick 8vo. ten or twelve shilling volume, the useful matter is easily condensible within a half-sheet of foolscap.—I suppose, in the present crowded state of the profession, it is really necessary for a man to write something—any thing—before he can emerge from his natural obscurity:—this is certain, that in these days of empiricism, he who deals most in the marvellous, is the most likely to make his fortune."

elementary work on *Peptic Philosophy.* At page 172 we read, that new bread is indigestible, and unwholesome, because ' it swells in the stomach like a sponge.'—Now if I had a pupil in physiology of three months' standing who betrayed such a woful lack of information as this, I should blush exceedingly for his tutor. It is impossible that *any thing* can *swell* in the stomach.—The distension, here unwittingly referred to the dilatation of the substance itself, is occasioned by the disengagement of carbonic acid gas, the bread being ill fermented."

On what authority does the author rest his unqualified assertion that nothing can swell in the stomach? Why should not new or any other bread swell in the stomach as well as in a basin of warm water into which it may be thrown? Every man's own sensation assures him that alimentary substances do swell in the stomach, independently of the extrication of gas or air But if he consults the experiments of Spalanzani, and especially those of M. Gosse, of Geneva, he will find the observation of Dr. Paris correct.

In respect to the white mustard seed, we have not given it much trial, either on ourselves or our patients; but from the assertions of men, on whose testimony we think we could rely, it has occasionally proved useful as an *aperient*, which quality it certainly does possess, though by no means in a manner that can be relied on in practice. On the other hand, we have seen four or five instances where this nostrum caused considerable disturbance in the system that required medical aid, and made work for the doctor. On the whole, we apprehend that the white mustard seed, like most other popular remedies, employed by the patient himself, will not affect the art and mystery of the regular practitioner; it will do at least as much harm as good—if not more. The greater the sale therefore of popular medicines and popular medical works, the more grist for the professional mill. If the public will be gulled—let them!

Qui vult decipi decipiatur.

24. ALTERATIONS IN THE STATE OF THE BILE.

In this country, the condition of the secretions, and especially of the biliary secretion, has long attracted attention. But on the continent, physiologists and pathologists seem to have been too exclusively employed, till of late, in ascertaining the condition of the solids, rather than the fluids of the body. We are glad to see such men as Andral taking up the inquiry. In a late sitting of the Parisian Academy of Medicine, this observant pathologist read a memoir on the alterations of the bile, which we hope will soon be published. In the mean time, we can only state a brief outline of the paper. M. Andral showed that we have often bile apparently healthy, when the liver is in a state of disease. and that, on the other hand, this secretion is often extremely vitiated, without any perceptible lesion of structure in the organ which produces it. One species of alteration which he has frequently observed, consists in a thin, aqueous, and albuminous condition of the bile, with very little yel-

low colour. He has seen this alteration in fatty degeneration of the liver—in atrophy of this organ—in hypertrophy—in duration—and scirrhus. He has also seen it in diseases where the liver was not affected apparently. He has seen the bile (as every one may see, who attentively observes) varying in colour, from a bright yellow to a jet black—in consistence, from the clearness of water to the density of honey. He has seen some specimens of bile that has blistered the skin when applied thereto—and when introduced into the cellular membrane of an animal, it has proved a veritable poison. These various alterations of the bile, he thinks, must justify the general opinion of the English, that the state of this fluid plays an important part in many derangements of the digestive organs. The physicians of England, says he, endeavour to remedy these biliary derangements by purgation, and especially by calomel and blue pill; whereas the disciples of Broussais consider these derangements as more dependent on chronic gastro-enteritis than on vitiation of the bile, and, consequently, proscribe purgation from the list of their remedial agents. Which party are we to believe? M. Andral thinks that both have carried their doctrines too far—and that both are sometimes right, as well as sometimes wrong. As for himself, he has found purgatives very useful in many cases, where Broussais would have condemned them as poisons.

M. Andral has made many observations on icterus. Every oganic disease of the liver may produce the yellow colour of jaundice—and all these diseases may exist without any icteritious suffusion. In general, where jaundice has been seen, without any organic lesion or mechanical obstruction in the liver, he has discovered the existence of either duodenitis, inflammation of the diaphragmatic pleura of the right side, or some phlegmasia of the brain or its coverings. In a few cases, however, he has been able to discover no organic lesion in any part of the body. In these instances, he thinks the cause of jaundice must have been some powerful mental emotion, or some affection of the hepatic plexus of nerves.

In respect to the yellow colour of the skin in jaundice, physiologists in general attribute the phenomenon to resorption of the bile, and its transport into the current of the circulation. M. Andral is rather disposed to think that the icteritious tint is produced by non-secretion, and, consequently, the remora in the blood, of the elements of bile, than by resorption of it after it is secreted in the liver. On this point we must differ, toto cœlo, from M. Andral. We know that the accidental entanglement of a gall-stone in the ductus communis will, even in a few hours, render the skin yellow. How can this be attributed to non-secretion? In those individuals, and in those complaints, where there is evidently a great paucity of bile, we find quite a different kind of complexion from jaundice—namely, a sallowness, which it is difficult to describe. We grant, however, that the yellow colour of the skin in yellow fever—in new-born infants—and after bruises, is very difficult to account for, either by the theory of non-secretion or resorption. We shall look with anxiety for M. Andral's memoir on this subject in a larger shape.—*Archives.*

25. SECALE CORNUTUM. MR. HASLAM.

Mr. T. B. Haslam, of Caernarvon, has lately administered this substance, with success, in cases of lingering labour, and also of uterine hæmorrhage. The following will serve as examples.

Case 1. Mrs. —— had been in labour fifteen hours before Mr. H. saw her. The pains were weak, the membranes ruptured, os uteri dilated, thin, and yielding. One scruple of powdered ergot of rye was given in thin gruel. In less than an hour strong pains came on, and by the expiration of the second hour the patient was safely delivered.

Case 2. A lady had been in labour 23 hours before Mr. H. was called. She stated that the pains were very weak, and now flagging altogether; the membranes are entire; os uteri not much dilated, and rather rigid. This was the lady's first labour, and Mr. H. waited eight hours, without any advancement or increase of the pain. One scruple of the ergot was, therefore, given, the os tincæ being dilatable. In three quarters of an hour strong pains came on, and safe delivery ensued. Mr. H. is of opinion that, in these two cases, delivery would not have been effected, without instrumental aid, had not the ergot been administered.

Case 3. The patient had been in labour 18 hours, during four of which the head was far advanced, but not continuing to advance. The patient's strength was failing. Under these circumstances, Mr. Haslam administered the ergot, which excited powerful pains, and the child was born in an hour and a quarter.

Mr. H. has given the ergot in cases of uterine hæmorrhage, with similar results. But, in puerperal convulsions, the ergot did not appear to excite any specific action, or answer any purpose.

The foregoing cases may encourage practitioners to farther trials of this curious medicine; and we should be glad to know the result, which we shall communicate from time to time, as upon the present occasion.

26. MOLLESCENCE OF THE LUNGS.

In the January number of our respected Northern contempory, the Ed. Journal of Medical Science, Dr. Hastings, of Worcester, has described a morbid state of lungs which does not exactly correspond with any that we have met with among modern pathological investigations. This is a peculiar softening of the pulmonary texture, without any tubercular disorganization, or any of the usual effects of inflammation. In consequence of this mollescence, profuse hæmorrhages sometimes occur—sometimes large ulcerous cavities are formed, not tuberculous, nor surrounded by any hardening of the parenchyma, as in hepatization. Sometimes the cellular tissue of the lung passes into a pulpy state, and makes its way through the bronchia by expectoration, without any ulcerated cavity being formed. This pathological condition has presented itself to our author

in very different states of the constitution:—sometimes in connexion with fever—sometimes with gradual failure of the vital powers, and slow emaciation—but, in most instances, without symptoms indicative of much mischief in the respiratory organ. Its tendency, in all cases, is to unfit the lungs for their office, and consequently to destroy life. Six cases in illustration are detailed by our author, of which we shall notice one or two.

Case 1. This was one of fever, in a man, 24 years of age, and who was not seen till the stage of collapse had taken place, with petechiæ on the surface. He seemed, however, to be recovering; but on the 27th day of his illness, there came on difficulty of breathing, &c. and he died on the 31st day of the disease.

The lungs did not collapse when the sternum was raised. They were exceedingly soft in texture, "and very much resembled the spleen when in a very soft state." In many places, there was a dark bloody fluid between the pleura pulmonalis and the parenchyma. The trachea was found full of a bloody serous fluid, as were the ramifications of the bronchia. In the air-cells the membranous appearance was lost, and only a soft pulpy matter was discoverable.

We shall be able to notice only another case, which is an interesting one.

Case 2. A young lady had been in a dubious state for two months, in consequence of cough, some trifling expectoration in the mornings and occasional tinges of blood in the sputa. Three of the same family had died of consumption. The young lady, however, was "full of flesh," and was gaining rather than losing in that respect. Still she had an unhealthy aspect—the pulse about 76—the tongue clean—bowels regular—breathing free—catamenia regular. In short, she complained of nothing except a dry hacking cough on first getting up in the morning. On percussion, the chest emitted a natural sound on each side, and the respiration was heard over both sides. Perfect pectoriloquism was heard on the left side, between the second and third, and third and fourth ribs. Our author therefore concluded, that there was a cavity in the superior lobe of the left lung. It was considered to be of small extent, and therefore recovery possible—and, at all events, danger not imminent. Cupping between the shoulders was prescribed, and infusion of roses with tincture of digitalis every four hours. Mild unirritating diet. In a few days the blood disappeared from the expectoration, and the young lady considered herself as "in perfect health," except a trifling cough. Another examination with the stethoscope confirmed the former diagnosis of an excavation in the lungs. She went on for about a month pretty well, when one morning she brought up some blood, accompanied by a small quantity of purulent matter. Alum was added to the mixture above-mentioned, and the pil. aloes cum myrrha prescribed. The hæmoptysis proceeded no farther, and again she thought herself getting quite well. In ten days

more, some hectic fever showed itself, with some ill-looking expectoration. In three days from this period there was expuition of scarlet-coloured blood. She complained of pain between the shoulders. Quietude—alum, infusion of roses, tincture of digitalis—cupped between the shoulders. The hæmoptysis continued the next day, and a grain of superacetate of lead, with a quarter of a grain of opium, every two hours, were ordered. These means proved inefficient, and she died in a few days.

On removing the lungs, they were found slightly adherent on the right side, and more so on the left. There was no appearance of purulent secretion in the trachea. The bronchia contained some sero-purulent fluid. On tracing the ramifications in the right lobes, the only appearances were, a rather suffused state of the blood-vessels in some parts—the lungs of a soft structure—and the air-vessels pervious throughout. This state obtained in the left side; "but on the upper and outer surface of the superior lobe appeared a cavity large enough to admit the half of a middle-sized orange, which had been prevented from opening into the cavity of the chest by the adhesion of the surface of the lung to the costal pleura; but it communicated freely with the bronchial tube." Pus was searched for, but could not be found.—Nor was there the smallest degree of hardness in the sides of this ulcer, indicative of the process of adhesive inflammation having been set up. On the contrary, the appearance was that of simple ulcerative absorption.

Dr. Hastings has appended some judicious reflections to this and the other cases, for which we must refer to the original paper. We shall, however, quote one passage, as it bears upon a topic which we have once or twice introduced into this journal.

"May not we also take advantage of such cases as the above, and by them enforce the necessity of treating certain varieties of pulmonary consumption by a strictly tonic plan? And may not this plan, so much reprobated by some authors, as not according with the results of examination after death, be found consistent with, or at least not opposed to, the evidence of mordid anatomy?"

The organic changes which the lungs undergo in disease are extremely numerous, and many of them are quite insusceptible of diagnosis, by the most accurate pathologist, during life. A man lately came into St. George's Hospital, with the *left* side of the thorax somewhat bulged out, and completely devoid of sound or respiratory murmur, on percussion and auscultation. In the *right* side of the chest, the heart was seen and felt beating; but respiration could not there be heard, except high up near the clavicle, and backwards near the spine. The respiration was laborious, the lips blue, the pulse quick. No accurate history of the complaint could be obtained. The patient stated that he had been ill six weeks, with pain in the lower part of the sternum, cough, but no expectoration. It was pretty evident that there was fluid in the left side of the thorax, and as it might possibly be purulent, it was agreed, in consultation, that an opening should be made between the sixth and seventh ribs. This was done by Mr. Bredie, when a considerable quantity of

sero-sanguineous fluid issued. The patient experienced great relief, and slept for some hours uninterruptedly after the operation. He gradually sank, however, and expired in a day or two. After the operation, the sound immediately returned in the right side, where the pulsation of the heart had previously been felt. The *left* side sounded hollow, of course, from the unavoidable admission of some air during the operation. On dissection, we understood that a large fungus hæmatodes had occupied and disorganized the left lung, as well as the corresponding portion of diaphragm, descending to the spleen.

We think the physician (Dr. Hewett) who recommended, and the surgeon (Mr. Brodie) who performed the operation, were perfectly justifiable. The man was suffering great distress in breathing, and no one could tell what was the precise nature of the fluid in the chest. Its removal, therefore, was desirable, whatever might be its nature. The great relief which followed did more than compensate for the pain of the operation, which last was justifiable on the principle of Euthanasia.

27. DEATH AFTER REMOVAL OF A TESTICLE.

The fatal accidents which succeed wounds and operations, not in themselves very formidable, have recently attracted much attention, and ought to be accurately investigated, *post mortem*, as this investigation must be attended with great advantages. The post mortem research, in the following case, is imperfect, as we shall presently show.

A man was received, under Mr. Lawrence, with an enlarged testis, of several years' standing. Various means of reduction were employed, but in vain; and, the man being otherwise in apparent good health, the testicle was removed. It was found to be of scirrhous construction. After the operation, the patient experienced symptoms resembling enteritis, and died at the end of seven days, "without any apparent urgent cause."

Dissection. The wound had suppurated freely, but no adhesion had taken place. The viscera of the abdomen appeared healthy, at first view, but a portion of intestine in the pelvis was found highly vascular and red for the space of six inches, and its internal surface ulcerated. A tumour, not very dissimilar in structure to that of the diseased testis, was discovered attached to the kidney.—*Lancet, No.* 179.

The state of the lungs and liver is not specified, and no mention is made of the brain. The mere redness of the intestine, for so small a space, and the ulceration of its mucous membrane, do not afford physiological explanation of the patient's death, and we are convinced that a further and more minute investigation would have disclosed lesions in the cerebral, pulmonary, or biliary apparatus. We cannot, therefore, too often or too strongly urge our brethren to examine all the great cavities of the body, when they are seeking for the cause of death, else they will frequently deceive themselves and others.

Quarterly Periscope

OF

PRACTICAL MEDICINE;

BEING

The Spirit of the Medical Journals,

Foreign and Domestic

WITH COMMENTARIES.

PART II.

HOSPITAL REPORTS.

"Ore trahit quodcunque potest, atque addit acervo."

1. PLEURISY AND ABSCESSES AFTER SURGICAL OPERATIONS.*

[Clinique de Perfectionnement.]

PART I.

EVERY practitioner must have observed that, when a suppuration is established in a part, and another local inflammation set up in the same individual, a large suppuration is often established in the secondarily inflamed part with surprising rapidity. This is still more remarkable when the intercurrent phlogosis occurs in a part not tending naturally to suppurate, or where the product of inflammation differs from that of common suppuration, as, for example, in the arachnoid, the pericardium, the synovial membranes, the tunica vaginalis testis; and above all, in the peritoneum and pleura. This species of superinduced phlegmasia is particularly deserving of the practitioner's attention, because it is one that frequently occurs; one whose causes, symptoms, and march are but little in consonance with those which we observe in other inflammations of the same organs or parts; and, finally, because the treatment must be different. It is in public hospitals, particularly after great surgical operations, and suppurations of any extent, that we have the best opportunities of witnessing facts of this kind. It is with the laudable view of inviting some attention to, and throwing some light upon this important subject, that M. Velpeau has presented his brethren with some clinical reports in the present paper.

Case 1. Petrel, 39 years of age, of good constitution, and never before having experienced any severe illness, was received into the HOPITAL DE PERFECTIONNEMENT, on the 8th January, 1826. He

* M. Alf. Velpeau. Revue Medicale, Decembre, 1826.

had had his right thumb crushed the evening before. Abscesses formed deep in the hand, wrist, and forearm; and ultimately such disorganization of parts took place, that it was necessary to amputate the arm on the 8th February. From this time till the 15th every thing appeared to do well; but at the latter date, he had a shiver, and fever followed. The features became shrunk, the respiration was impeded; yet the patient could lie on either side, had no cough, and felt no pain in any part of the chest. On the 16th he complained of sharp pain in the stump, extending to the shoulder. Suppuration was less free in the wound, and the parts looked unhealthy. The breathing still continued short, the pulse was small and irregular, but not very quick, the tongue moist and not coated. During the 17th and 18th the same symptoms continued, the debility increasing. On the 19th the patient died.

Dissection. The stump was flabby and unhealthy. The encephalon and its envelopes were sound. The abdominal viscera, examined with the greatest care, presented no trace of disease. The left thoracic cavity, however, contained a large quantity of thin creamy and puriform fluid, resembling a mixture of whey and matter, but containing no flocculent or albuminous materials, thus differing from those collections which we find after death in common inflammation of the pleura. On draining out the fluid from the cavity, the pleura was every where found covered with a coat of purulent matter exactly resembling that which had come from the stump, and without any trace of that albuminous concretion which we see in pleurisy. The membrane, being washed and cleaned, was scarcely altered from its natural appearance and polish. The lung of this side was reduced to one third its natural dimensions. It was not inflamed. In the left side of the chest every thing was sound.

Case 2. A young man, 26 years of age, had the middle finger of his right hand so badly crushed by a log of wood, on the 18th of May, 1826, that amputation was necessary some days afterwards. On the 6th, 7th, and 8th of June, the hand became swelled and very painful, with corresponding sympathetic fever. On the 9th there was an abundant suppuration. 10th. The inflammation and swelling reached the middle of the forearm. 12th. The matter was thin and of bad quality, but there was now very little fever—the abdomen was drawn in and tense—tongue white and moist. 13th and 14th. The disease made rapid progress, and two incisions were made, when a large quantity of pus escaped. The most attentive examination did not detect any disease in the thorax or abdomen. Nevertheless the patient was evidently hastening to the grave. On the 16th, in the evening, a considerable space of pleuritic inflammation was discovered by the stethoscope in the right side of the chest, and the respiration became very short. The pulse was neither fuller nor quicker than natural. A blister to the seat of inflammation. 17th. No pain was felt in the right side of the chest—the breathing was free—but the chest sounded dull in that side—and no respiratory murmur could be heard there. 18th. The patient reported himself better, and complained only of weakness

in consequence of starvation. For two days past the suppuration in the head and arm has greatly diminished, and the soft parts of the member are flaccid, like those of a dead subject. The pulse is now extremely small. He died in the evening of this day.

Dissection. The hand and fore-arm were entirely disorganized, the skin, tendons, and muscles appearing as if macerated in dark pus. There was very little blood in the vascular system, and it did not appear natural. The cranial and abdominal organs appeared perfectly healthy. In the right thoracic cavity there was an effusion to an immense extent of sero-purulent fluid, like that in the preceding case, and exactly of the same nature as what came from the arm previous to death. There were at least five pints of this effusion in the bag of the pleura. This membrane throughout exhibited a layer of "veritable pus." When this last was removed, the pleura appeared red and inflamed in some parts, but quite natural in others. In the lung of this side there were found six tubercles, crude or suppurated, generally the size of a nut each, but some of them much larger, not surrounded by any inflammation. There was no hepatization, nor was the mucous membrane of the bronchia inflamed. In the left lung there were two or three tubercles, but every thing else was sound.

Case 3. Rayer, aged 45 years, short of stature, and apparently of strong constitution, was admitted into the hospital on the 25th July, 1826. Excepting hæmorrhoids, this man had not been subject to any other disease. The neighbourhood of the anus and the lower part of the rectum presented tubercles that bled when irritated, and caused him great distress. These had continued for nearly a year. On the 30th July an operation was performed for the removal of these tumours. In the evening of the same day there was a profuse hæmorrhage which caused syncope. The bleeding ceased spontaneously, and was followed by a profuse perspiration. On the second day, the pulse had acquired strength, and there was no pain about the anus. On the third day there was fever, which continued during the fourth, but unaccompanied by any local pain. The dressings were removed, but nothing particular appeared in the wound, except some clots of half-putrid blood mixed with some suppuration which came away from the rectum. On the 5th the pulse was improved, but the prostration of strength had increased. Some blood came away from the rectum. There was no thirst—the patient considered himself getting better—and could lie equally well on either side. On the 6th the debility increased; but there was no pain nor any local affection complained of. He died in the evening of the 7th, the bowels having been always free—the breathing easy—and no cough till the last.

Dissection. The encephalon and its coverings in a state of integrity. The gastro-intestinal mucous membrane unaltered. Some of the lymphatic glands in the groin, and the cellular membrane in the neighbourhood of the bladder were in a state of suppuration. In the lungs and liver upwards of thirty small abscesses, of various sizes, (which will be alluded to in the second part of this memoir,)

were found. There were no traces of inflammation in the immediate vicinity of any of these abscesses in either organ. In the left thoracic cavity, there was a considerable effusion of thin pus, not resembling the flocculent serous effusions which we see after unequivocal pleuritis.

Remarks. It would be easy to accumulate numerous cases of the kind here described; but it is unnecessary, as every man of observation must have been surprised at such unexpected occurrences. This pleuritic inflammation is peculiarly remarkable, in being unattended with the usual symptoms characteristic of the disease; and also in being speedily mortal, without corresponding phenomena indicative of the danger.

In respect to the explication of the pathology of these cases, we are perfectly agreed with M. Velpeau, that the fluids circulating in the vessels play an important part in the drama. In our own minds we have not a doubt that deleterious fluids are taken up by the absorbents, in cases where parts do not heal kindly after wounds and operations; and that these poisons give rise to the phenomena of metastasis in the vital organs afterwards. It is in this way, we think, that dissection and other poisoned wounds produce such havoc in the constitution. The ill-conditioned pus which is generated in the parts, ultimately taints the whole system, and destroys life. In fact, we believe that in these as in many other cases, as we have often observed before, the seat of disease is originally in the fluids.

SECOND PART OF THE MEMOIR.

In the second part of his memoir, M. Velpeau treats of tubercular abscesses in subjects who have died after great surgical operations, and also after the suppression of a more or less abundant suppuration. Our author published a thesis on this subject, some years ago, and subsequent experience has only served to confirm him in the frequency of the disease. In the wards under Messrs. Boyer and Roux, it was ascertained that, of fifteen people who had died after great surgical operations, pus, either fluid or concrete, was found in masses of various sizes, and forming species of tubercle, in different organs of the body, in the following proportions: viz. in ten, these purulent depôts were in the lungs—in two they were found in the liver alone—in three they were found in both the liver and lungs—and in one, in the spleen.

M. Velpeau thinks that the formation of these distinct purulent depôts, varying in size, from a hempseed to that of a pullet's egg, is characteristic of the resorption of pus, from wounds or suppurations. They are formed with surprising rapidity, and yet without attendant symptoms which give notice of their existence. In the liver, these depôts are of greater magnitude than in the lungs, and they contain a greater variety of fluids or concretes. Although the signs of this dangerous translation to an internal organ are very obscure, our author thinks that such an event may be suspected when, in an individual, who has undergone a surgical operation, or who has been

affected with ulcers, abscesses, or suppuration of any kind, there arises a sudden and unexpected reaction, without manifest or adequate cause. In such cases, we have generally rigors, which return at irregular intervals, the skin being dry or hot, or covered occasionally with perspiration. The pulse is little to be depended on; but is usually frequent. There is generally cephalalgia, and the features are strikingly altered. In some subjects there is diarrhœa; in others, obstinate constipation—in others still, no affection of the abdominal functions. The external wound or suppuration, in the mean time, undergoes considerable changes. The soft parts collapse, and become pale and flaccid. The discharge becomes thinner, serous, and fetid. The quantity is often notably diminished. Hæmorrhages, under such circumstances, often appear unexpectedly; debility makes rapid progress; and death takes place from the fifth to the twentieth day. In cases of this kind, we may confidently predict that purulent pleurisy or purulent depôts have taken place.

In respect to treatment, our author thinks that bleeding is hurtful in the majority of cases; and it is not difficult to account for this, when we reflect on the original cause of the malady, and on the well-known fact that venesection promotes absorption. "Purgation would probably be more advantageous, as favouring a determination of fluids to the intestinal canal." The melancholy fact is, that death almost invariably takes place under such circumstances; and therefore the great object is to prevent the constitutional disturbance by diligent attention to the external wound or suppuration, and to the removal of the original source of the complaint—especially the stagnant fluids about the wound.

Case 4. Guillemin, aged 52 years, an old soldier, of apparently robust constitution, was admitted into the Hospital of the Faculty, on the 3d of May, 1826, having been long affected with disease of the ancle-joint. He came for the purpose of amputation of the limb. The operation was performed on the 7th of the same month, and union by the first intention was attempted. On the 8th the stump was painful, and sympathetic fever came on, but not severely. Low diet—lemonade for drink. 9th. The fever more developed, and in the evening an abundant perspiration broke out. 10th. Same state. The stump is hot and painful. Eight ounces of blood from the arm. 11th. The pulse is reduced, but the tongue is getting dry, and the thirst is urgent. Perspirations occasionally break out, and there are shooting pains in the stump. 12th. The dressings were removed—there was no union effected. Erysipelas appeared in the neighbourhood of the wound, and had extended to the knee. Dry lint and simple dressings were applied. The patient expressed himself as better. 13th. Same symptoms as on the 11th. The suppuration is abundant and very thin. The erysipelas appeared inclined to bound itself to the neighbourhood of the knee. 15th. The face was tinted yellow—the features shrunk—pulse small and unequal. The patient affirmed that he felt no uneasiness in any part but the stump, which was still inflamed. The abdomen was pressed in all directions, and the chest explored by auscultation;

without detecting any disease. 16th. Some delirium and somnolency. The suppuration in the stump is greatly diminished, and the parts are flaccid and hanging about. 17th. Comatose. 18th. He died.

Dissection. Several purulent collections were found between the stump and the hip in the cellular substance connecting the muscles. There was much pus found in the veins of the limb. There was much suppuration in the cellular membrane about the hip-joint, and in the pelvis. The veins, up as far as the cava, where it enters the heart, contained pus mixed with blood. In the liver, four purulent depôts, the size of small eggs, were found. The pus was very thin, and exactly resembled the discharge from the stump. In some, however, the matter was thick, especially towards the centres of the depôts. The parenchymatous structure of the liver was unaltered. The mucous membrane of the stomach and bowels was sound, and the fæces in the rectum were solid and healthy. The thoracic and cranial contents were perfectly sound.

Case 5. Louvet, aged 27 years, strong and well made, having never before experienced any severe disease, entered the Hospital of the Faculty, on the 2d October, for a wound in the great toe of the left foot. The toe was divided, except a small strip of flesh. The parts were brought together, and union attempted. No inconvenience was felt during the first four days. The dressings were removed, and no union had taken place. During the fifth and sixth days there was pain in the toe, and some suppuration. On the 7th inflammation was found to spread along the foot, with much pain. There was fever, and the wound looked unhealthy. The discharge is abundant and discoloured. Cataplasms, venesection. 8th. The fever is diminished. 11th. Heat and dryness of the skin—epigastrium morbidly sensible to pressure. 12th. In the evening, the patient complained of pain in the right hypochondrium—breathing difficult—abdomen rather tense—the conjunctivæ yellow—tongue and mouth dry. Twenty-five leeches to the region of the liver. 13th, Seemed better; but the abdomen is more distended. Twenty-five leeches to the epigastrium. Delirium in the night. 14th. The tongue is very dry in the centre, red and moist at the sides. The breathing is still more embarrassed. Skin very dry and hot. The abdominal pain augmented till the 18th. He died on the 19th, having had 40 leeches on the abdomen that day.

Dissection. The surface was jaundiced. The parts in the neighbourhood of the wound were much disorganized, and some purulent depôts in the foot. In the abdomen, the peritoneum was inflamed in several places, and some sero-purulent matter effused into the cavity of the abdomen. The alimentary canal was scrupulously examined, and found perfectly sound. A considerable portion of the convex surface of the liver was acutely inflamed, and covered with a crust of coagulable lymph. In the substance of this organ there were found several whitish masses, and several tubercles not yet softened down. " The former were evidently collections of con-

crete pus, formed in the hepatic parenchyma." One of these whitish masses or depôts was as large as a pullet's egg, and projected against the diaphragm, which was, at that point, in a state of suppuration.* The portion of right lung opposed to the liver was inflamed, and even suppurated, and the neighbouring portions hepatized, with clusters of tubercles interspersed. There was also some inflammation and tuberculation in the left lung. The other viscera of the body were sound.

In M. Velpeau's remarks on this case, he adverts to the difficulty of accounting for these circumscribed purulent depôts in different organs, by simple inflammation of the parts. Indeed, we think it impossible to reconcile these depositions, in globular masses, with common phlogosis. There is some other kind of process, besides inflammation, to produce these and many other kinds of deposition in cavities and parenchymatous structures.

Case 6. Perrin, aged 38 years, of robust constitution, had contracted syphilis at the age of 26 years, and was properly cured. In 1823, being in his 38th year, he had his foot injured by a tight shoe, which injury came into the state of an ill-conditioned sore, for which he was brought into the Hospice, on the 23d September of the above year. The leg was inflamed and painful, and a bad-looking ulcer on the outer side of the instep. Bleeding by leeches and other means were used; but the ulcer spread, and gangrene commenced. The gangrene ascended, and ultimately reached as high as the knee, when amputation was performed; but whether a line of separation had, or had not taken place, is not stated. We rather think, however, that no line of demarcation had commenced. Things were not mended by the operation, and he died five days after the amputation, without exhibiting any sign of disease in the thorax or abdomen.

Dissection. The face of the stump was gangrened, and no adhesion had taken place. Trains of abscesses were found in the cellular membrane, up along the thigh, and in some of the lymphatic glands of the groin. There was some inflammation, to no great extent, in the pleura. In the abdomen, there were several patches of inflammation on the peritoneum, and some sero-purulent effusion into the general cavity. Excepting some redness in one or two points of the mucous membrane of the stomach, there was no appreciable lesion in any part of the digestive canal. In the liver a number of abscesses were found distributed here and there through its substance. In these, the purulent matter presented various aspects, from a thin serous character to thick pus. The intermediate parenchymatous structure was not inflamed or otherwise altered.

Case 7. A young woman, 19 years of age, was admitted into the

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* We can scarcely agree with M. Velpeau, that the white masses above-mentioned were specifically different from the more concrete, or the ripe tubercles found in the same viscus.

Hospital of the Faculty to be confined of her first child. This took place on the first of February. The first four days passed without accident. On the 5th she had a shiver, followed by fever. On the 7th, the tongue was red at the tip and pale in other parts. The abdomen soft. The 8th and 9th in the same state. On the 10th the fever became stronger, and there was a slight cough, occasioning a very little pain in the thorax. This continued during the next two days. On the 13th, the fever is severe—face flushed—epigastrium sensible to pressure—cough troublesome—no expectoration. 14th. The breathing is sensibly embarrassed—fixed pain in the right side. Twenty-five leeches to the chest. 15th. The breathing shorter—the pain of side more diffused, but less acute—diarrhœa—a violent shiver.—The fever increased—the pain extended over a great part of the thorax, and the patient died on the 19th.

Dissection. The lungs were slightly hepatized, near the diaphragm but no trace of pleurisy. In the abdomen, the peritoneum covering the liver was slightly inflamed. In this last organ there were some twenty purulent depôts, of the same kind as in the preceding case. The intermediate parenchymatous structure of the liver was not affected. The uterus contained a quantity of blackish matters, pulpy, or almost fluid. The veins of the uterus were found to contain the same material, and even the hypogastric veins. There was pus in the parietes of the uterus.

Our authors anticipate an objection which may be made, in this case, to their doctrine of resorption—namely, that there was no external wound from which pus might be taken into the circulation. They justly observe, that the internal surface of the uterus might very well serve the place of an external wound, and afford matter for absorption. Indeed, this last doctrine is maintained, as our readers know, by Professor Hamilton, of Edinburgh, as we have shown in our last number, page 223, *et seq.* The following is the resumé which our author has given.

" 1mo. That those who die of acute diseases succeeding surgical operations or profuse suppurations, generally fall victims to pleurisy and to the formation of abscesses, more or less numerous, in the viscera.

" 2ndo. That this kind of pleurisy, hitherto undescribed, is of a peculiar nature, and might be denominated the " pleurisy succeeding operations."

" 3tio. That this disease differs from simple pleurisy, in the latency of its march, the rapidity of its progress, and the almost invariable certainty of its fatality.

" 4to. That the purulent depôts above described never acquire a large volume; but are circumscribed and spherical collections of matter, concrete or fluid.

" 5to. That they are more especially developed in the liver and the lungs, where they may give rise to a species of tuberculous affection.

" 6to. That the pleurisy and formation of depôts are rarely accom-

panied by characteristic local symptoms, sufficient to give notice of their existence.

"7timo. That these said inflammations and depôts are manifested under the influence of absorption of pus, and of its transport into the current of the circulation.

"8vo. That general bloodletting appears to favour the developement of the maladies in question.

"9to. That, finally, where the existence of the malady was unequivocal, the march of the disease has hitherto been unchecked by any medical treatment employed."*

We recommend an attentive consideration of this paper to our professional brethren.

2. INJURIES OF THE HEAD.

[Middlesex.]

In the Medical and Physical Journal for January, is a report of some cases of injuries of the head, treated at the Middlesex hospital. The first two are cases of scalp wounds, and were under the care of Mr. Shaw.

Case 1. D. Maynard, æt. 63, was thrown from the box of a hackney coach, Nov. 7th, 1825, and received a severe scalp wound, extending from just above the right ear to the external angular process of the frontal bone on the same side, and then turning upwards and backwards to end at the vertex. The integument was much lacerated, and the bone extensively denuded of pericranium. The lips of the wound were brought together by adhesive straps and a roller, and calomel and jalap were given, so as to open the bowels freely. On the 10th, erysipelas appeared, but, by the 16th, it had declined: the wound was suppurating kindly, though its edges had receded, leaving a portion of bone, nine or ten inches in circumference, uncovered. All seemed to go on favourably till Dec. 5th, when the patient became irritable; the surface of the wound was dry, and a sanious discharge oozed from it; tongue furred. *Calomel and antimony.* 6th. He became delirious, and died in the night.

Dissection. Pericranium thickened, the bone beneath perforated by numerous holes, giving it a worm-eaten appearance. A small portion of bone, far removed from the centre of the external caries, was diseased throughout its whole thickness. The dura mater, at this part, had separated from the bone, and was thickened; the surface of the brain immediately beneath was *not* discoloured. Ventricles enlarged and filled with serum.

Remarks. A question arises, was this a case for the application of

* We think this conclusion is rather too hasty. The great fatality of constitutional disorder, resulting from resorption of ill-conditioned discharges and suppurations, is unquestionable; but we sometimes see recoveries from the worst forms of the disease. Whether these recoveries be spontaneous, or effected by art, we do not presume to decide.

the trephine? We apprehend not; for, setting aside the extent of the injured and diseased bone, we question much whether the death was not owing rather to the *general* injury done the brain in the erysipelatous attack, than the *local* mischief arising from the carious bone.

Case 2. — Henderson, æt. 37, was admitted, March 22, 1826, having the anterior part of the right parietal, with a portion of the frontal bones, denuded of scalp and periosteum; the surface dry and ash-coloured, with here and there a spot of caries. A fissure, large enough to admit the bulb of a probe, marked the recession of the living from the dead bone. The right eminentia frontalis was similarly diseased, and the whole was surrounded by dark-coloured granulations.

It appeared that the man was subject to epileptic fits, and that in one of these, about ten weeks previously, he had fallen with his head on the bars of the grate, occasioning a burn of the scalp which was followed by sloughing and exposure of the bone. He had now for the first time an attack of maniacal delirium, and subsequently he has had three more such attacks, usually lasting a couple of days.

His general health on his admission was much affected. He could not walk without assistance, and his intellects had suffered. On the 29th, he had his usual maniacal attack, "the symptoms generally resembling those of a patient labouring under acute typhus." On the 31st, he was becoming rational, the muscles of the face of the affected side being partially paralyzed. April 1st, he became quite paralytic; the surface of the body was covered with petechiæ, and on the night of the 2nd he died comatose.

Dissection. A part of the dura mater, a little larger than a shilling, immediately beneath the larger portion of diseased bone, was separated and covered with a minute quantity of sero-purulent fluid; lymph had been effused on the surface of the membrane at this part, and to its inner secreting surface a small shred of lymph was found attached. No signs of inflammation in the arachnoid or brain, save that there was about an ounce of serum in the ventricles.

Remarks. Did the maniacal attacks in this case depend upon the carious bone? The reporter of the case thinks not, and we are inclined to agree with him, for he observes that the first paroxysm appeared before, in all probability, the bone could have been dead throughout, and Dr. Prichard observed that in inveterate epileptics, attacks of violent maniacal delirium not uncommonly supervene. At the same time it is not unlikely that the injury done the bone proved an exciting cause to the delirious paroxysms. We question too, although there was matter on the dura mater, whether the trephine could have been of any service in such an unfavourable case.

Three cases of concussion are related, one of them fatal. In this case the surface of the brain was found, on dissection, to be covered with spots of extravasation; and its structure apparently broken down at points, it being here and there softer than natural, with spots of extravasated blood; the cerebral vessels were turgid and dilated.

3. CLINIQUE OF THE HOTEL DIEU.

[M. Recamier.]

M. Martinet has reported the autumnal quarter of M. Recamier's practice in the above establishment, through the medium of the Revue Medicale for December, 1826.

The number of patients received was 144, of which 90 were discharged cured; 33 relieved or remained *in statu quo;* and 14 died —the mortality being thus one in ten. Of the whole number, 97 were acute, and 47 chronic diseases. We shall now select some of the observations contained in this report.

1. *Intermittents.* Eight cases of this fever occurred—all being contracted in Paris. Five were quickly cured by emetic tartar in ptisans, so as to act upwards and downwards. A disordered state of the digestive organs induced M. Recamier to prescribe this remedy. They were quotidian intermittents of recent origin and unconnected with any internal phlegmasia. The cephalalgia was the most troublesome symptom. In one of these patients there had been some pain in the abdomen, and the physician who attended him, in private practice, had him bled; but the accessions continued undiminished. A neighbour then prescribed a bottle of wine with plenty of pepper in it, which the patient took; but still the paroxysms continued precisely the same as after the bleeding. The man then repaired to the hospital, where M. Recamier put him on diluents and vegetable juices. In eight days the quotidian disappeared without any medicine.

One case of tertian fever was accompanied by tumefaction of the spleen, and gastro-biliary derangement. Two grains of tartar emetic were given in a pint of veal broth, with the effect of cleansing the primæ viæ and reducing the general malaise. Twenty leeches were applied to the left hypochondrium. The next paroxysm, which was the tenth, was much less violent than the preceding accessions. Twenty more leeches were applied, and the consequence was that the eleventh paroxysm lasted little more than an hour. The cure was completed in a few days by vegetable juices, eau de vichy, and tepid baths.

The second case of tertian, was at the 9th period of accession. The right hypochondrium was painful and somewhat tumid. Fifteen leeches to this part enfeebled the succeeding fit. Twelve grains of sulphate of quinine, given in divided doses during the apyrexia, prevented the return of the ague.

M. Recamier is of opinion that intermittent fevers are not always to be stopped with safety, at an early period, by the quinine or bark. We think he is right. We believe the disease, in this country at least, is much more frequently connected with, or dependent on, some local irritation, than is generally imagined. We know a young gentleman in this metropolis, who always has a paroxysm of ague when any fæcal matters accumulate about the caput or ascending portion of the colon. Nothing will stop the paroxysms till these irritating matters are dislodged, when the ague disappears, without

any bark or arsenic. Several other instances of a similar kind have lately fallen under our notice. The practitioner should, therefore, upon such occasions, make a strict examination into the state of the abdominal viscera, before he *throws in* the bark.

2. *Arachnitis.* Two cases only of this complaint are detailed or commented on. The first case was that of a man who had continued for more than a month, in a state of stupor and insensibility, with delirium and some febrile movements. As the symptoms were not violent, and had continued some time, M. Recamier contented himself with cold applications to the head. The sensorium, however, did not become free till a copious eruption of boils took place about the hips. The man then soon got well.

The second case was that of a man who had been seized with inflammation of the brain after a long exposure of the head to a powerful sun. He died. On dissection, the cerebral pulp was found to be altered in texture, especially in the neighbourhood of the septum lucidum, where the parts were softened. The arachnoid was infiltrated and thickened, as was the pia mater all over the superior portions of the hemispheres. Delirium was the characteristic feature of the man's disease during life.

3. *Paralysis.* Practitioners are aware that the paralysis which succeeds apoplexy, is generally owing to an extravasation of blood in the brain, and requires a long time for resorption. But then we occasionally see cases where the paralysis suddenly disappears, under different kinds of treatment, and in such a manner as to induce suspicion that cerebral extravasation could not have been the cause. In this uncertainty respecting the true state of the case, in paralysis, M. Recamier thought it might not be improper to employ galvanism in the case of a man, aged 42 years, who had laboured for two months under hemiplegia, the result of apoplexy. The motility and sensibility of both upper and lower extremities of one side were annihilated. The galvanic fluid was thrown from the spinal column in the neck through the arm, and also the leg affected with palsy. When the galvanism had been used about fifteen times, the motility of the lower extremity returned in some degree; but that of the upper was not at all bettered. Not so with the sensibility. This was restored completely in both extremities, by the use of galvanism. This fact is somewhat favourable to the remedy; for during the two preceding months no change whatever had taken place, in respect to either motility or sensibility, in the paralysed members.

4. *Prussic Acid.* This medicine was employed in about a dozen of cases of chronic catarrh or advanced stages of phthisis. The doses were, at first, two, three, or four drops in pectoral ptisans, in the course of the 24 hours. The quantity never exceeded six drops in that space of time. In three of the cases, the medicine produced

no effect whatever. In the majority of instances, however, it induced a sense of heat and constriction in the throat and stomach—in a few instances, colicky pains. In one case of phthisis, it gave origin to severe diarrhœa, and was discontinued. In about half the subjects, the cough was notably diminished, as well as the dyspnœa and the difficulty of expectorating. The nature of the sputa, however, was not changed. The nights were less distressing under its influence, and some sleep was obtained. In one young man, the cough and fever were removed for a time; but a relapse took place, and death ensued. In these cases, other anodynes had entirely failed. Upon the whole, it appears evident to M. Recamier, and indeed to others, that the prussic acid, especially in large doses, irritates the mucous membrane of the digestive tube, and therefore should not be administered when this membrane is in a state of chronic inflammation or irritation. In other respects, it seems to exercise a considerable sedative influence on the respiratory apparatus.

5. *Hæmoptysis.* Several cases of recent hæmoptysis were treated with nitre, either alone, or combined with conserve of roses. The dose was, from a drachm to half an ounce in the 24 hours. It produced no inconvenience, in this quantity, in the stomach or bowels. The patients merely complained of an acrid heat in the throat, and the urine was sensibly increased. The hæmoptysis gradually diminished, and soon ceased altogether. M. Recamier observes that the practice of giving large doses of nitre, imported from Italy into France, is now established beyond all doubt, as a very useful one, in the disease above-mentioned, and in some others.

6. *Angina Pectoris.* A supposed case of this disease is detailed by M. Recamier, of which we shall state some of the particulars.

Case. Ravier, aged 37 years, had been subject, in early youth, to fainting fits and falls, from sudden loss of power in the lower extremities. About the age of fifteen, he became affected with palpitations and sense of uneasiness in the region of the heart; but his health was otherwise undisturbed till the age of 29, when profuse hæmoptysis occurred. This was checked by bleeding, leeching, and other means. It returned the succeeding spring, but did not continue long. Four years passed without any discharge of blood from the lungs; but the pain in the præcordial region continued, bounded to a space of about six inches in extent, over the sixth rib on the left side. The year after, although Ravier was gaining in embonpoint, both his arms, but especially the left, became the seat of a painful numbness, that stretched down, occasionally, to the fingers' ends, in the direction of the median nerves. To this was added a difficulty of breathing—all these symptoms coming on periodically. In 1824, the attacks were in the habit of recurring at short intervals, and it was found necessary to have recourse to repeated bleedings to mitigate the dyspnœa, which was now rendered

were found. There were no traces of inflammation in the immediate vicinity of any of these abscesses in either organ. In the left thoracic cavity, there was a considerable effusion of thin pus, not resembling the flocculent serous effusions which we see after unequivocal pleuritis.

Remarks. It would be easy to accumulate numerous cases of the kind here described; but it is unnecessary, as every man of observation must have been surprised at such unexpected occurrences. This pleuritic inflammation is peculiarly remarkable, in being unattended with the usual symptoms characteristic of the disease; and also in being speedily mortal, without corresponding phenomena indicative of the danger.

In respect to the explication of the pathology of these cases, we are perfectly agreed with M. Velpeau, that the fluids circulating in the vessels play an important part in the drama. In our own minds we have not a doubt that deleterious fluids are taken up by the absorbents, in cases where parts do not heal kindly after wounds and operations; and that these poisons give rise to the phenomena of metastasis in the vital organs afterwards. It is in this way, we think, that dissection and other poisoned wounds produce such havoc in the constitution. The ill-conditioned pus which is generated in the parts, ultimately taints the whole system, and destroys life. In fact, we believe that in these as in many other cases, as we have often observed before, the seat of disease is originally in the fluids.

SECOND PART OF THE MEMOIR.

In the second part of his memoir, M. Velpeau treats of tubercular abscesses in subjects who have died after great surgical operations, and also after the suppression of a more or less abundant suppuration. Our author published a thesis on this subject, some years ago, and subsequent experience has only served to confirm him in the frequency of the disease. In the wards under Messrs. Boyer and Roux, it was ascertained that, of fifteen people who had died after great surgical operations, pus either fluid or concrete, was found in masses of various sizes, and forming species of tubercle, in different organs of the body, in the following proportions: viz. in ten, these purulent depôts were in the lungs—in two they were found in the liver alone—in three they were found in both the liver and lungs—and in one, in the spleen.

M. Velpeau thinks that the formation of these distinct purulent depôts, varying in size, from a hempseed to that of a pullet's egg, is characteristic of the resorption of pus from wounds or suppurations. They are formed with surprising rapidity and yet without attendant symptoms which give notice of their existence. In the liver, these depôts are of greater magnitude than in the lungs, and they contain a greater variety of fluids or concretes. Although the signs of this dangerous formation in an internal organ are very obscure, our author thinks that such an event may be suspected when in an individual who has undergone a surgical operation, or who has been

affected with ulcers, abscesses, or suppuration of any kind, there arises a sudden and unexpected reaction, without manifest or adequate cause. In such cases, we have generally rigors, which return at irregular intervals, the skin being dry or hot, or covered occasionally with perspiration. The pulse is little to be depended on; but is usually frequent. There is generally cephalalgia, and the features are strikingly altered. In some subjects there is diarrhœa; in others, obstinate constipation—in others still, no affection of the abdominal functions. The external wound or suppuration, in the mean time, undergoes considerable changes. The soft parts collapse, and become pale and flaccid. The discharge becomes thinner, serous, and fetid. The quantity is often notably diminished. Hæmorrhages, under such circumstances, often appear unexpectedly; debility makes rapid progress; and death takes place from the fifth to the twentieth day. In cases of this kind, we may confidently predict that purulent pleurisy or purulent depôts have taken place.

In respect to treatment, our author thinks that bleeding is hurtful in the majority of cases; and it is not difficult to account for this, when we reflect on the original cause of the malady, and on the well-known fact that venesection promotes absorption. "Purgation would probably be more advantageous, as favouring a determination of fluids to the intestinal canal." The melancholy fact is, that death almost invariably takes place under such circumstances; and therefore the great object is to prevent the constitutional disturbance by diligent attention to the external wound or suppuration, and to the removal of the original source of the complaint—especially the stagnant fluids about the wound.

Case 4. Guillemin, aged 52 years, an old soldier, of apparently robust constitution, was admitted into the Hospital of the Faculty, on the 3d of May, 1826, having been long affected with disease of the ancle-joint. He came for the purpose of amputation of the limb. The operation was performed on the 7th of the same month, and union by the first intention was attempted. On the 8th the stump was painful, and sympathetic fever came on, but not severely. Low diet—lemonade for drink. 9th. The fever more developed, and in the evening an abundant perspiration broke out. 10th. Same state. The stump is hot and painful. Eight ounces of blood from the arm. 11th. The pulse is reduced, but the tongue is getting dry, and the thirst is urgent. Perspirations occasionally break out, and there are shooting pains in the stump. 12th. The dressings were removed—there was no union effected. Erysipelas appeared in the neighbourhood of the wound, and had extended to the knee. Dry lint and simple dressings were applied. The patient expressed himself as better. 13th. Same symptoms as on the 11th. The suppuration is abundant and very thin. The erysipelas appeared inclined to bound itself to the neighbourhood of the knee. 15th. The face was tinted yellow—the features shrunk—pulse small and unequal. The patient affirmed that he felt no uneasiness in any part but the stump, which was still inflamed. The abdomen was pressed in all directions, and the chest explored by auscultation,

the absorbents; but these soon became so involved in the general tumefaction of the limb, that they could not be traced. The constitution sympathises much—the secretions are deranged or suspended—the circulation hurried—the pulse hard and contracted, and, after a time, irregular. The nervous system is greatly disturbed—the countenance anxious—features contracted—want of sleep. When the cellular membrane has sloughed extensively, the greatest prostration of strength takes place—and bad irritative fever often closes the scene.

The treatment which Mr. Earle has found most beneficial was, by free longitudinal incisions, if possible, before suppuration takes place, through the swollen inflamed integuments, down to the fascia or muscles. The vessels of the skin should be allowed to bleed freely, and even encouraged by warm fomentations. The limb should then be enveloped in a warm bread and water poultice. A large dose of calomel, antimony, and opium is then to be given; and, after some hours, the patient should be freely purged with salts and senna. If the incisions be sufficiently large and deep, the relief is very speedy, and it is seldom necessary to repeat them. In a few hours there will be a complete subsidence of the tension and pain—the nervous system will be tranquillized—and the secretions restored.

The objections which have been urged against this practice, on the score of the severity of the operation, are frivolous and vexatious; but they are such as will always weigh with timid practitioners, or with those who have not confidence in themselves, or the art of inspiring confidence in their patients.

Fourteen years ago the Editor of this Journal drew the attention of the profession to this mode of treatment, in a quarterly report of sick and wounded on board the flag-ship of the late Sir William Young, in the Scheldt, and published in the 7th vol. of the "New Medical and Physical Journal, p. 183—203, March, 1814." We shall give a short extract from this report, in corroboration of the practice.

H. M. S. Impregnable, in the Scheldt, Feb. 1814.

"The species of erysipelas, which I have observed most prevalent in the navy, comes nearest to that which Dr. Bateman treats of under the head of 'Erysipelas Œdematodes.' When it attacks the face or breast, it is often dangerous. 'Vomiting, rigors and delirium, followed by coma, take place about the height of the disorder, and often terminate fatally on the seventh or eighth day.' Bateman, p. 127. Several instances of this kind I witnessed on board the Saturn a few years ago in Basque Roads, which proved fatal. Where it attacked the lower extremities, the inflammation soon destroyed the *cellular membrane*, forming the connecting medium between the integuments (including the adipose substance) and the muscles; which membrane (attended with a quantity of ill-conditioned pus) would occasionally slough away, and come out wherever any orifices were made, either by nature or art, leaving a whole tribe of integuments surrounding, but disconnected from, the subjacent muscles. When this happens, in the thigh for instance, the patient is too often exhausted by the discharge,

the mischief spreading farther and farther up, till it even begins to separate the muscles of the abdomen from the superincumbent integuments, and thus puts an end to his miseries! To check this evil, in embryo, a medical gentleman of my acquaintance, (Mr. Hutchison of Deal Hospital) first, I believe, made deep incisions through the skin, adipose and cellular membranes, quite down to the muscles, as early as possible, and before suppuration. The effect is, a discharge of the stagnant-looking blood, with a reduction of the tension, swelling, heat, pain, and, in short, of all the unfavourable symptoms. I have witnessed this in three or four instances; and in one case lately, where the erysipelas was spreading fast up the leg, half a dozen incisions completely arrested its progress in one day, and in a short time afterwards the man returned to his duty. I am not prepared to say how far this treatment could be adopted, where the affection appears on the face, head, or breast; my observations being confined to the disease, as it appears in the above-mentioned manner, on the extremities: but I cannot help recommending these practical facts to the serious attention of the profession, as I am well convinced, that many lives and much suffering may be saved by adopting the treatment sketched out."*

We believe the above report was published sometime before Mr. Hutchison's paper appeared in the Medico-chirurgical Transactions; and the cases alluded to in the Saturn, in Basque Roads, happened in 1809 or 1810. There the disease assumed an epidemic form, and several men died with typhoid symptoms. The incisions alluded to were made, in these cases, with great benefit; but they were often too late, as the destruction of the cellular membrane goes on with inconceivable rapidity.

Seven cases, in illustration, are given by Mr. Earle, for the particulars of which we refer to the journal in which they are published.

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* In corroboration of the term *œdematodes*, as applied by Dr. Johnson, to the disease in question, we may cite a case reported from St. Thomas's Hospital, in No. 176 of the Lancet. A sailor, 27 years of age, of sallow unhealthy aspect, was admitted under Mr. Travers, on the 12th of December, 1826, with diffuse cellular inflammation of the right upper arm. He had received a contusion, while intoxicated, some days previously. There was now a dusky redness of the skin, from the shoulder to below the elbow, and spreading over the breast. The limb was immensely swelled. "At some parts it had a tense unyielding feel, whilst at other parts, there was slight *œdema* on pressure." There were fever and other constitutional symptoms. Leeches in large numbers and lotions were applied, and he had a grain of calomel and a quarter of a grain of tartar emetic every four hours. A poultice was next day ordered. These remedies were continued for some days; but on the 18th December, we find incisions made, which gave great relief, although only a small quantity of matter was evacuated. From the wounds, large sloughs of cellular membrane were extracted, and ill-conditioned pus flowed out. The patient was now much relieved—the quinine was given, with wine and nourishing diet, and the man recovered.

The above was a case where early incisions would have saved the patient much suffering, and greatly abridged, it they did not entirely prevent the extensive sloughing of the cellular membrane.

5. M. LISFRANC ON ULCERS, SIMPLE AND VARICOSE. (La Pitie.)

The distinguished surgeon of La Pitie has lately reported, through the medium of his pupil, M. Klimatis, an interesting memoir on ulcers, more especially of the lower extremities. M. Lisfranc does not accord in sentiment with those who attribute the frequency of ulcers on the legs to weakness of the vital powers in those parts. He places the cause of this affection to the account of "inflammatory irritation," determined by remora of blood in the saphena vein, which vessel presents between the malleolus and head of the tibia, in most instances, no valvular apparatus. When any valves are found, they are never seen between the malleolus internus and the calf of the leg. "It is precisely in this last place that the solution of continuity in question most frequently manifests itself." The reason is, he thinks, the difficulty which the blood encounters, in this place, in its return against gravity, unassisted by valves. The stasis of the venous blood becomes an irritant, and induces an inflammatory condition, which causes and keeps up the ulceration. The success which attends ligature of the saphena vein, in ulcers of the leg, irremediable by other means, is, he observes, an incontrovertible proof of the truth of his theory. The means employed by the partisans of atony and debility, furnish auxiliary proofs—as the horizontal posture, quietude, compression.

These ulcers are much more frequently situated on the left than on the right leg. How is this to be accounted for? The partisans of atony said it was because the left leg is naturally weaker than the right. But, of a number of ambidexters, or rather of left-footed patients, and consequently where the balance of strength was on the left side, it was still found that ulcers were infinitely more frequent on the left leg than on the right. M. Lisfranc accounts for the circumstance by the pressure of the sigmoid flexure of the colon, (so often distended with indurated fæces,) on the external iliac vein of that side. It is for the same reason that sarcoceles, cirsoceles, and hydroceles are more frequent in the left than in the right testicle, or side of the scrotum, the pressure of the sigmoid flexure acting on the spermatic cord, and retarding the return of blood.

M. Lisfranc has some peculiar notions respecting the nature of these ulcerations of the legs. He considers them a kind of gangrenous affection, (une affection gangreneuse, *sui generis*). We humbly conceive that this is but a very slight improvement on John Hunter's term—"ulcerative inflammation." Be this as it may, we all know the difficulty of healing old-established ulcers on the lower extremities, and the various means that have been tried in this and other countries for expediting such process. M. Lisfranc alludes to the real or supposed danger of closing drains of this kind long established. Many of the best observers in medicine and surgery have testified to the diseases which have supervened on such cures, especially to cerebral and pulmonary congestions; and consequently have recommended the opening of issues or other drains to pre-

vent these accidents. M. Lisfranc believes that the danger arises from a bad condition of some of the viscera at the time the ulcer is healed, rather than from any disease which could result from the simple incarnation and cicatrization of a discharging sore. With this view, he accurately examines his patients, and when he finds any visceral disorder, he first endeavours to put that out of the way, by the proper remedies and by proper diet. He next corrects the bad state of the ulcer itself, by reducing inflammation and irritation, through the medium of rest, leeches, poultices, and other proper applications. When the sore is thus brought to a condition of being healed, he applies bundles of charpie wetted with solution of chloruret of lime or of soda, and keeps the sore soaked with such solution, graduated in strength to the sensibility or irritability of the parts. By this application he avers, and appeals to the wards of La Pitie for proofs, that he heals these old ulcers in a very short time, varying from five to eighteen or twenty days.

But when the ulcer is based on a lardaceous or disorganized substratum, this will not succeed. M. Lisfranc then tries ablations, by slices, of the disorganized tissue; or, more frequently he makes various incisions, crucial and perpendicular, into the parts. If these do not succeed, ablation of the whole is effected, by the knife or by the cautery, according to the extent and depth of the morbid structure. The actual cautery, in some obstinate cases, is substituted by M. Lisfranc, for the potential. When the ulcer is thus brought to a tenable condition, the chloruret is applied, and cicatrization soon follows.

Those who frequent La Pitie are surprised at the astonishing rapidity with which this able surgeon heals burns and scalds in this way. Forty-eight hours are often sufficient for healing of burns of the first or second degree of intensity. Ulcers healed in this way are said to be infinitely less liable to break out again, than those treated in the common manner. He properly advises the laced stocking or other support, however, after the cure thus performed. And, in cases where there is any tendency to visceral or cerebral disorder, he establishes one or more issues on the upper or lower extremities.

The chlorurets will not be successful where the ulcer is connected with, or dependent on a varicose state of the veins of the limb. The ligature and section of the saphena vein have been often practised in this country and in France; but dreadful accidents have too generally ensued. The sides of the vessel are usually so thickened that they will not collapse when cut; and if air gets in, a rapid and destructive phlebitis is established. M. Lisfranc therefore abandoned this practice, and cut out two or more inches of the dilated vessel, trusting to careful compression of the vein above and below the resection, rather than to the ligature. In this manner he has operated a great number of times in La Pitie, and no fatal accident has ever succeeded such practice. As success, in this operation, depends on the formation of a coagulum in the saphena, it is necessary to select a spot for the operation, where there are no collateral communications. M. Lisfranc generally selects the inside of

the knee, near the upper extremity of the tibia, for the resection, the branches of communication being all below this joint. If the saphena be varicose up as high as the knee, this state almost always coincides with a chronic inflammation of the sides of the vessel. In such case, M. Lisfranc performs the resection on a sound portion of the vessel, on the inside of the thigh, but as low down as possible.

Operation. The patient is placed horizontally, and if it is the internal saphena that is to be operated on, the limb is laid, a little bent, on the external side. An assistant compresses the vein, by grasping the limb tightly above the part. The surgeon then, with a bistoury, makes an incision along the vessel, going only through the skin. When the vein is laid bare and insulated, the surgeon introduces the point of the scissors under the vessel, close to each angle of the wound, and snips the vein across. A considerable quantity of blood is then suffered to escape, if the vessel will bleed, in order to prevent inflammation; and if hæmorrhage will not take place, the patient is bled from the arm. Light, but careful pressure is then made above and below the wound, which is healed, if possible, by the first intention. Much pressure ought not to be made on the wound itself, for fear of irritation and inflammation. The patient should be kept quiet, and the utmost attention paid to diet and regimen. In less than thirty hours, the ulcer changes its aspect, from red or violet to pale—the purulent secretion diminishes, and assumes a healthy appearance. Cicatrization sometimes follows, in five, ten, or fifteen days, but the medium term is from twenty-five to thirty.

Phlebitis may occasionally succeed the operation. The saphena will become tense and painful, feeling like a cord under the finger. If not checked, the inflammation will run upwards, and death may be the consequence. M. Lisfranc, in such cases, abandons the inflammation of the saphena below the wound to itself, and covers the track of the vessel above the resection with leeches. When these fall off, a warm poultice with plenty of laudanum is applied. Since he trusted entirely to bleeding and poulticing *above* the wound, he has never lost a single patient. We shall close this paper with a case in illustration.

Case. Tellier, aged forty years, entered La Pitie on the 10th of November, having on the inside of the left leg a varicose ulcer, the size of a man's head. This ulcer had continued for several years, and was accompanied by a multiplicity of varicose veins, and very callous edges. It had resisted all kinds of treatment, and therefore the operation was performed on the 10th of the same month, in the manner already described, an inch and a half of the vessel being removed. The upper extremity of the vein furnished a considerable quantity of blood, and slight compression was employed. 16th, The ulcer is pale—there is no pain—and the patient appears in a good state. 17th, The upper portion of the vein is painful and hard. Twenty-five leeches were applied, followed by cataplasms, with laudanum. 18th, No amelioration of the phlebitis. Twenty-five leeches again applied. 20th, Some traces of the phlebitis still re-

mained, and another batch of twenty-five leeches were put on the track of the vessel, the cataplasms and anodynes being continued. 21st, The inflammation has completely disappeared. The poultices were still persevered with. The ulcer is red, the suppuration good, cicatrization is commencing. 25th, The patient was so well that food was given him. He was discharged cured on the 27th January.—*Revue Med. Decembre*, 1826.

As a proof of the great success which attends M. Lisfranc's treatment of ulcers by means of the chloruret of lime, and resection of varicose veins, it is stated that La Pitie usually contained about 50 of these cases constantly within its wards; whereas there are now very few seen there, so speedily are they cured and discharged. We think our hospital surgeons may take some useful hints from their Parisian confrere; and that they may profit by this paper, and an article on the chlorurets in a preceding part of the present number of this Journal.

6. INJURIES OF THE HEAD.

(Middlesex.)

In the February No. of the Medical and Physical Journal, the subject of injuries of the head is continued, and some interesting cases are brought forward, showing the difficulty of ascertaining the precise condition of the brain and its membranes in these accidents. We shall notice some of these cases.

Case 1. A boy, 11 years of age, had fallen from a considerable height, and was taken up senseless: He was bled, and then sent to the hospital, 6th Dec. 1826. He was still insensible, after an hour had elapsed. He was cold, pale, and pulseless, with dilated pupils, and tranquil respiration. There was a denuded portion of cranium on the vertex, the size of a shilling. In the course of another hour, he showed returning sense, and cried loudly when his head was touched; but when unmolested he sunk into a state of stupor. His right leg was found to be fractured. The pule had become perceptible, and animal heat was returning. Head shaved, and evaporating lotions applied. Calomel and jalap administered. 7th, Much the same. Moans, and is very irritable. More purgatives, as the medicines had not acted. In the evening, the bowels were freely opened. Saline medicines with antimony. 8th, Has been noisy in the night—talks incoherently—pulse still weak—and only 76. Leeches to the temples—calomel and antimony at bed-time. 9th, Is constantly crying—passes his urine and fæces involuntarily. Pulse sharp, though weak. Leeches to the temples—a dose of calomel and jalap. 10th, Face flushed—skin hot and dry—tongue foul—pulse thrilling, 85 and stronger. Venesection to four ounces—and 12 leeches to the temples. 12th, Still continues noisy and sleepless—pulse softer after the last bleeding, but is again vibrating. V. S. ℥vj. From this time he gradually improved.

Case 2. A boy, aged 10 years, was admitted, 24th Aug. 1826, with all the usual symptoms of compression, caused by the fall of a

heavy piece of timber on his head. He was pale, cold, motionless —pulse small and feeble—constant vomiting. Scalp contused over the middle of the parietal bone, without wound—no irregularity in the bone to be detected by pressure. Head shaved—cold lotions—purgatives. 25th, Bowels have been well opened—lies comatose —skin has become hot and dry—face flushed—pulse quick and strong—*breathing perfectly easy*—irregular action of the irides—can be roused for a moment by loud speaking—thighs and legs drawn up—asks for drink, or the pot de chambre—rolls about his head and moans—often raises his hand to his head. Venesection to ten ounces, which partially restored his senses; but the favourable change was only temporary. The vomiting still continues. Sulphate of magnesia in small doses. 26th, Became convulsed at 4 o'clock to day, and died.

Dissection. The parietal bone was found to be fractured, and a small portion slightly depressed. From this part a fissure could be traced backwards along the parietal bone, and terminating near the base of the skull. About two ounces of dark coagulated blood were found on the dura mater, under the fractured and depressed portion of the skull. Two branches of the meningeal artery had been torn, but the dura mater was not perforated. The part of the hemisphere under the coagulum was flattened, and softer than the surrounding parts. "There was a dark spot on the surface of the brain, which corresponded to the depressed portion of bone." There were no marks of inflammation in the brain.

It is remarked here that experience has failed, hitherto, to point out the distinction between concussion and compression. It may be so. But, when such symptoms as the above take place, with an obvious contusion of the scalp, are we not authorised to cut down and examine the state of the bone at least; and even if no external fracture can be detected, are we not authorised to trephine, under such circumstances as the above? Can it be asserted that the removal of a piece of bone, and also the ablation of the coagulum pressing on the brain, would not have saved this boy's life? Surely such pressure was adequate to the production of the symptoms detailed, and may be fairly considered as the cause of death.*

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* In the same number of the Medical and Physical Journal, there is a case related by Mr. Boyle, Surgeon of the Middlesex Infirmary, which bears upon this point. A boy, nine years of age, was thrown from a horse, on the pavement, and was supposed to have fractured his skull. On examination, a large open space was seen, commencing at the situation of the anterior fontanel, and widening as it ascended on the right side, in the course of the sagittal suture. This was stated to have existed since birth. "The symptoms were, a total suspension of the mental powers, stertorous breathing, dilatation of the pupils, with insensibility to light, a low, rapid and irregular pulse, coldness of the extremities." Marks of external violence were detected behind the posterior superior angle of the right parietal bone. On pressure being made here, a depression was felt. The integuments were much tumefied. The

Case 3. P. C. a strong Irish labourer, fell, July 12th, 1826, from a scaffolding thirty-five feet in height. On admission he was quite insensible; pulse scarcely to be felt; pupils much dilated; respiration unembarrassed. He rolled about in bed, often groaning and putting his hands to his head, and lay with the thighs drawn up towards the abdomen and head bent upon the breast. Scalp apparently uninjured—considerable hæmorrhage from the left ear. *Head to be shaved—calomel and jalap.* The pulse continued weak and not above forty all day, and he remained in a dozing state. 13th, Much the same, save that there is some heat of scalp. *Hirud.* xij. *temporibus—cold lotion to the scalp—purgative enema, as the calomel has not operated.* In the evening the pulse got up to fifty, and was stronger; the bowels had been opened, and though he was roused once, he relapsed into a lethargic state. *Emplast. canthar. nuchæ.* 14th, Rather more sesible; pupils more contracted, but he was still restless. *Calomel and jalap—aloetic enema.* In the evening the pulse got up, and he was bled to eight ounces with relief. 15th, Sensorial functions very imperfectly performed; pain in the head; pulse quicker; bowels not opened. *Aloetic glyster to be repeated, with house medicine—ten leeches behind the ears—calomel and antimony three times a day.* From this time he continued slowly to improve under local bleeding, blistering, purges and antimonial medicines. *Aug. 5th,* He could walk in the garden with assistance. Aug. 15th, He was discharged. "He could then walk alone—he was quite deaf in the left ear; his intellects were much impaired; his countenance was a complete blank; in short, he was little better than an idiot." Since then his faculties are in a slight degree restored.

Remarks. Was this a case of pure concussion? We think it was not. The bleeding from the left ear—the subsequent deafness in that ear—the extreme slowness of recovery, and the injury done the intellectual functions, seem clearly to indicate compression on the brain. In fact we think it extremely probable that a vessel was ruptured, most likely the meningeal, that part of its contents escaped by the ear, and part coagulated on the surface of the brain producing the symptoms narrated above. Then comes the question of trephining; if the scalp be injured in any one place, there is some sort of guide to the surgeon, but if, as here, the scalp be

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pericranium was divided by a crucial incision, and the dura mater exposed, this being a part originally unprotected by bone. Effused blood was found pressing on this membrane, and removed. A considerable hæmorrhage occurred The boy was now able to answer questions, and the pupils contracted on the application of light. Leeches, cold lotions, purgatives, and other very proper means were employed, and the boy recovered. When all swelling of the integuments had subsided, it was found that there was a very considerable portion of brain unprotected by bone. We think the treatment was very judicious, and that the removal of the extravasated blood from the dura mater, contributed mainly to the successful issue of the case.

uninjured, and the bone unbroken, it might be dangerous practice to *dig* in search of coagula upon the dura mater.

Before closing this short article, we may also notice a case of compound fracture of the cranium [in the Lancet] from Guy's Hospital. The boy (12 years of age) had received a kick from a horse on the head, by which the bone (parietal) was comminuted, and the scalp irregularly wounded. The symptoms of compression were present, as stertor, slow pulse, dilated pupils, insensibility, &c. Under these circumstances, Mr. Bransby Cooper operated and removed the depressed portions of bone, by means of Hey's saw and the elevator. The patient very soon experienced relief. The pulse rose in a quarter of an hour, and consciousness returned. In the evening, there was reaction, and blood was abstracted. A brisk dose of calomel was given. The patient rapidly recovered. This was certainly the kind of case which promises most success under an operation, viz. fracture and depression of bone—laceration of integuments; in short, a compound fracture of the skull.

7. CONGENITAL DISLOCATION OF THE HIP-JOINT.*

(Hotel Dieu.)

It is well known that the most frequent kind of dislocation to which the hip-joint is liable, is that of the head of the femur upwards and backwards on the dorsum of the ileum. It is also well known that of this dislocation there are two varieties—the first is the result of accident—the second is *consecutive*, the result of scrophulous ulceration in the joint. But M. Dupuytren, in the memoir now before us, proposes to add to the list a third variety of this same dislocation, which, as it is found at birth, he terms "congenital."

The signs which characterise it, are shortening of the limb—presence of the head of the femur on the dorsum ilei—prominence (saillie) of the trochanter major (?)—retraction of almost all the muscles of the upper part of the thigh towards the crest of the ileum, where they form around the head of the femur a kind of cone, the base towards the os innominatum, the apex towards the trochanter—the almost entire denudation in consequence, of the tuber ischii—the rotation of the limb inwards—the obliquity of the thigh proportioned, of course, to the age and developement of the pelvis—the meagreness of the limb, out of all proportion to the trunk and upper extremities, which are really well developed—and the imperfect motions, particularly of abduction and rotation. The upper part of the trunk of persons thus affected is thrown backwards, whilst the lumbar portion of the column projects as much forwards; the pelvis is placed almost horizontally on the femurs, and the ball of the feet alone touches the ground. In walking we observe them incline the body strongly towards the limb which is to support the weight, at which moment the head of the femur of that side is seen distinctly to rise on the dorsum ilei, in consequence of the superincumbent weight and sinking of the pelvis,

* Baron Dupuytren; Répertoire, No. 3, Tome 2me, 1826.

and then they drag painfully forwards the opposite limb, the head of the femur of which is perceived not to rise but to sink in consequence of its own weight drawing it down. This series of phenomena then is repeated each step the patient takes, and although locomotion to him is not so painful as it appears, still he is incapable of making any thing like a long journey.

In the recumbent posture, most of the symptoms of the dislocation in a great measure disappear, in consequence, no doubt, of the relaxation of the muscles and removal of the weight of the trunk. In this position of the body the surgeon can by a slight effort elongate the limb and shorten it again, that is, he can pull the head of the femur downwards or press it again upwards to the extent of two or even three inches, according to circumstances.

Let us look to the history of this complaint. Even at birth the prominence of the haunches, the obliquity of the femurs, &c. are perceptible, but in these cases the attention of the parents is seldom much directed to the malformation till the child begins to walk, and indeed even then its awkward efforts are attributed in general to weakness, &c. till the end of the third or fourth year, when the parent is at last convinced there must be something wrong. As the pelvis begins to be developed (for it is a curious fact that the growth of the pelvis is never affected in these patients) the symptoms which we have enumerated above become more marked, especially in females, and a person not acquainted with the true nature of the malady, would consider it the consequence of scrophulous disease of the joint. But the previous history, the absence of all pain, swelling, abscess, fistula or cicatrix, and the simultaneous affection of both sides are sufficient to correct this error. At the same time it must be remarked that these individuals are for the most part of a lymphatic and scrophulous habit.

As the age of the person increases, and the superincumbent weight becomes of course greater, the heads of the femurs rise on the dorsum ilei till at last they almost touch the crista, the obliquity of the bones is increased, and the difficulty of motion proceeds at last so far as to incapacitate the patient from all active exercise.

As this of course is not a fatal disease, the opportunities for cultivating its pathology must be comparatively rare. In the cases which he has examined M. Dupuytren has found the acetabulum almost entirely obliterated or even entirely wanting; the head of the femur a little flattened on its internal and anterior surface, and a sort of cotyloid cavity to lodge it, formed on the dorsum of the ileum, as happens in unreduced accidental dislocations. In one or two instances, he has seen the ligamentum teres elongated, and in some places worn apparently from the pressure and friction of the head of the femur.

The Baron puts some questions to himself and the reader as to the etiology. He asks, can the dislocation be consecutive to a disease which assailed the fœtus and disappeared before birth? Or can it be the result of an ante-natal accident? Or lastly, can it be owing to an original imperfection of the acetabulum, or in other words, can it be a congenital malformation? He seems to incline to

this position, but like a skilful disputant he has dealt his blows so equally to all his men of straw, that it is almost hard to say which is up or which is down.

M. Dupuytren makes some very sensible remarks on the treatment, which of course can be but palliative. As the weight of the trunk is the main agent in aggravating the displacement, repose is obviously indicated; but it is not necessary to confine patients to the recumbent posture; for in the act of sitting there is no stress on the femurs, the body resting entirely on the tuberosities of the ischia. Let these individuals then choose a profession which they can exercise when seated. Our author advises, likewise, the use of the cold bath, and the application of the bandage which encircles the pelvis, confines the trochanters, and keeps them of uniform height, thus binding the ill-adapted parts together, and preventing that continual motion to which they are exposed. This practice, though it certainly will not cure the complaint, will give a great degree of support to the hip-joints, and prevent the progress of the displacement.

In the course of eighteen years, M. Dupuytren has met with twenty cases of this kind, seventeen or eighteen of which have been females.

There is a plate appended, which shows the characters of this congenital dislocation very satisfactorily.

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8. DISSECTION WOUND.*

(Mr. Shaw—Middlesex.)

This was the case of a medical gentleman, who, while sewing up a subject that had died of peritonitis, grazed with the needle the middle finger of the left hand. He did not notice this scratch at the time, but awoke the next morning (7th January) with pain and stiffness of the fingers and hand, the former soon extending up to the axilla. To these symptoms were added head-ache—dull heavy coldness of the other hand and of the feet. Feeling nervous and depressed, he took two table-spoonfuls of brandy in a cup of coffee, and then went out to visit some patients. The pain increased, and he had alternately a kind of hysterical fit of laughing and crying. Returning home his breathing became oppressed, with a sense of constriction in his throat, and difficult deglutition. He took some more brandy, as the sense of coldness augmented. By mid-day he had taken three quarters of a pint of brandy. A medical friend advised him to discontinue the stimulant—to take some calomel—and to apply some leeches to the chest. Mr. Shaw visited the patient about one o'clock, and found the wrist and hand of a livid colour—a similar patch on the inside of the arm—the finger swollen—but the wound scarcely perceptible. "His countenance was very extraordinary, his expression being that of a mixture of hysterical alarm and intoxication." The patient said he was a dead man, and felt that nothing could save him. Mr. Shaw gave immediately eight grains of calomel and six of colocynth, with two grains of opium, wrapping his arm and hand in a lotion of laudanum and liq. plumb

* Med. Journal, Feb. 1827.

acet. dilut. Laudanum was ordered to be kept poured over the cloth as it dried.

Being a little composed Mr. S. left him, and returned in an hour. The patient was still composed, and he ordered a linseed-meal poultice made with a very strong solution of opium, to be applied to the hand and wrist. In the evening, Mr. Griffiths and Mr. Shaw visited the patient. They found him low and dejected, but quite composed. The hand and arm were not so much inflamed as in the middle of the day. Ten grains of Dover's powder and four of calomel to be taken immediately, followed by a draught of camphor mixture, carbonate of ammonia, and laudanum. The draught to be repeated every four hours. On calling next morning, they were not a little surprised that the "dead man" had gone to a considerable distance, to attend a woman in labour! They returned at 3 o'clock, and found their patient sitting comfortably in his parlour. At seven in the evening, he was so well as to give Mr. Shaw a clear and connected account of all that had passed up to the time of Mr. S.'s first visit. He had not even a head-ache, after so much brandy, though unused to spirits—the hand and arm were shrivelled, white, and free from pain. His bowels had been freely opened. He was advised to take some Dover's powder and opium, and a glass of brandy in gruel for supper. Next day he was out seeing his patients, and had no farther inconvenience.

We agree with Mr. Shaw that, although this gentleman had a rapid recovery, he had also a narrow escape. Indeed there can be no rational doubt that a specific principle had been absorbed in this case, for it would be preposterous to attribute all the phenomena to "thecal inflammation." They were far more like those which follow the bite of venomous animals, and we think they were of the same nature.

The treatment must be modified by the symptoms. With the deadly coldness and nervous dejection presented in the above case, stimulation was evidently the proper remedy. But a general rule cannot be founded thus. Had this gentleman presented symptoms of violent reaction and inflammation, the stimulating plan would have been improper, and even moderate depletion might have been justifiable. Here, in short, as in all other cases, we must be guided by the symptoms. High excitement must be controlled—nervous depression counteracted, by cordials and stimuli.

9. ANEURISM FROM VENESECTION.*
(St. George's.)

Two cases are related from the practice of Mr. Brodie at St. George's, of aneurism of the brachial artery following venesection. The first case, that of J. Rogers, will be found already detailed, at page 194 of our last number. Of the second case we shall give some particulars.

H. Chambers was bled in the West Indies in 1820, soon after which a pulsating tumour appeared at the bend of the arm, which by degrees attained the size of a large walnut. In April, 1820, a sur-

* Med. and Phys. Journ. for February, 1827.

geon tied the brachial artery above the tumour. This diminished in size; and the pulsation ceased; but there came on numbness of the hand, and severe pain, which, however, subsided in a few weeks. In the course of two or three months, the tumour returned, and in September, 1820, he entered St. George's.

On pressing the aneurismal tumour, there was felt, besides the common pulsation, a peculiar thrill like that given by a varicose aneurism. Dec. 7th, Mr. Brodie tied the brachial artery, an inch and a half above the aneurism, when the pulsation ceased, but, in a few minutes, returned. A tourniquet was placed on the arm, the sac cut into, some coagula removed, and its inner polished membrane displayed. On loosening the tourniquet, blood flowed through two orifices, that of the upper and that of the lower portion of the brachial artery; consequently it was tied immediately above and below the sac. But there was yet a third orifice, through which flowed blood, partly venous and partly arterial, marking the communication with both an artery and vein. Into this the blunt end of a probe was passed, so as to mark its situation, and a ligature was then applied close to the sac, thus cutting off the communication of the vessels with it. All went on well, and in a month after the operation, the patient quitted the hospital cured.

This, no doubt, was a case which does occasionally happen, of complication of varicose with common aneurism. We think it might admit of question, whether, in such a case as this, the application of a ligature, above and below the sac, without cutting into it, would not be sufficient. This operation would bring the case into the same circumstances as simple varicose aneurism, which we know does not, in general, require a ligature; and would certainly be attended with less hazard than the opening of the sac. At the same time, we freely confess that the operation performed by Mr. Brodie *must* be more effectual, and *did* prove quite unattended with danger, in the above instance.

10. SURGICAL REPORTS OF ROUX, BRESCHET, AND DUPUYTREN.*

(Hôpital de la Faculté.)

In No. 10, of this Journal, we noticed the practice of M. Roux, in several cases, as recorded by M. Velpeau. We shall now lay before our readers the sequel of the above reports, drawn up by the same gentleman.

Case 1. This was a boy, two years of age, whose urachus remained open, forming a living fungus-like tumour at the umbilicus, which by pressure could be returned into the abdomen, and which discharged a fluid exactly resembling urine. The urinary organs themselves were well formed. Various means were tried to stop the unnatural discharge but without effect, neither catheters in the bladder nor plugging of the umbilical opening proving successful.

* Hôpital de la Faculté. Archives Générales, August, 1826.

Stone in the Bladder. Six cases of this fearful disase are detailed; five of them fatal, which is certainly a high ratio of mortality.

Case 1. The patient was a child, æt. 6, of good constitution, who had suffered from stone for two years. M. Blandin operated after the manner of F. Côm, but it is stated in the report, that the incision was so small, that the lithotome and forceps were with difficulty introduced. Peritonitis supervened, and the boy died within 48 hours after the operation.

Here the smallness of the incision and consequent violence were no doubt the main cause of the fatal event.

Case 2. A boy, æt. 16, who had laboured under the symptoms of calculus for eleven years. In consequence of the size of the stone, M. Roux decided on performing the operation of Celsus, as modified by Béclard and Dupuytren. A semi-lunar incision was made about an inch anterior to the anus, (*cornibus ad coxas spectantibus paululum,*) and the neck of the bladder divided on both sides by the lithotome of F. Côm. The calculus, however, was so large that it was necessary to break it into fragments, and the extraction was tedious, and accompanied with a great degree of violence. On the following evening fever and cephalalgia appeared; these symptoms by the next day were much relieved, but they returned, and on the fourth day from the operation the patient sunk.

Dissection. General but slight peritonitis; infiltration of seropurulent matter into the cellular membrane of the pelvis; parietes of the bladder reddened.

Would not the high operation have been advisable here? We know that in youths the outlet of the pelvis is comparatively more confined than in the adult, and consequently the extraction of a large stone difficult, and proportionably dangerous. This being the case, we think the high operation preferable to the one put in practice here, as the suppuration in the cellular membrane seems to have been principally owing to the force necessarily employed in extracting the masses of calculus from the bladder.

The next case we shall notice is more remarkable for the candid manner in which it is related than for any great éclât which attaches to the operator himself.

Case 3. This was a child, æt. $2\frac{1}{2}$, who for a year past had suffered from uneasiness in the penis, and pain on making water. On sounding, M. Roux thought he felt a stone, but on the operating table, on sounding again, the results were less satisfactory. M. Velpeau and others introduced the instrument, and could not satisfy themselves of the presence of a calculus. M. Roux, however, thought he felt one, and the recollection of a former case where he alone had discovered a small calculus in the bladder, determined him to operate. The operation was performed with Hawkin's gorgeret, but no stone could be found. Peritonitis succeeded, and in 60

hours the child was dead. No examination of the body was permitted.

When such candour is shown as in the report of the present case, one feels reluctant to employ the pen of criticism. We must say, however, that placed as M. Roux was, himself not satisfied of the existence of a stone, and those around him still less so, the performance of the operation was imprudent, to say the least of it. He is a confident man who *sounds* with a *gorget*. M. Velpeau remarks that such instances are not so rare as, from the little mention made of them, one would be inclined to believe. Candour, no doubt, would be beneficial to the interests of science: but we much doubt whether in England, at any rate, where public opinion is so free, we might almost say censorious, men will be found to publish to the world what may be any thing but advantageous to the interests of themselves.

Case 4. This was a diminutive lad of 15, and by no means a good subject for the operation, as he had a most unconquerable dread of it. The gorget was used; the stone found to be very large, and after having been broken to pieces, extracted with difficulty. The lad died on the second day.

Dissection. Purulent infiltration of the cellular membrane of the pelvis—fragments of stone still left in the bladder, and indeed in the wound; the surface of which was coated with coagulable lymph.

In lithotomy, more perhaps than in any other surgical operation, as much depends upon the constitution of the patient, his habits of life, and other fortuitous circumstances, as upon the skill and dexterity of the surgeon. At the same time, there are very many instances where the fatality is attributable to obvious causes, and we conciencientiously think that in several of the above cases such is the fact. In the first case particularly, the smallness of the incision, and consequent violence necessary, as we observed before, left few well-grounded hopes of success. Upon the whole, we do not think these favourable specimens of lithotomy.

As we are upon the subject of calculus, we shall amalgamate with this report of M. Roux's the report on the same subject published by Messrs. Breschet, Dupuytren, and Sanson, in the Répertoire. These gentlemen determined on making experiments at the Hotel Dieu, on the comparative merits of the transverse or bilateral operation, performed by M. Dupuytren; the lateral operation of F. Côm, performed by M. Breschet; and the recto-vesical operation, by M. Sanson. The different methods were put in practice *alternately*, and consequently without selection of cases.

Transverse Operation. The instruments M. Dupuytren uses are —a common staff, a lithotome somewhat like that of F. Côm, but consisting of two curved blades, which open in opposite directions by means of two levers, (*bascules*,) which are pressed against the handle of the instrument. The handle is moveable upon a screw, and so contrived that the separation of the blades can be regulated

at will to the extent of eighteen lines. The mode of operating will be shown in the following case.

Case 1. Rouzet, æt. 38, of lymphatico-sanguineous temperament, who had suffered pain in making water for thirty-two years, entered the Hotel Dieu on the 14th June, 1825, for incontinence of urine. On sounding, M. Dupuytren discovered a stone apparently large and rough. It appeared that he had been in the habit of introducing the fingers of his left hand into the anus, in order to relieve the pain which he experienced. The patient was prepared by baths, light purges, and regimen, for the operation, which took place on the 1st July.

The patient being placed in the usual position, a slightly curved transverse incision, the concavity of which looked backwards, was made through the skin and cellular membrane, with the point of a straight bistoury, about seven or eight lines from the anus. M. Dupuytren, fearing that the great dilatation of the lower part of the rectum (caused by the repeated introduction of the fingers) would expose the gut to injury from the blades of the lithotome, introduced two fingers of the left hand into the intestine, stretching it transversely, and pressing it towards the coccyx. A second and deeper incision was now made down to the urethra; this was followed by a good deal of bleeding. The urethra was next divided in the direction of its axis by the bistoury passed on the nail of the forefinger. The double lithotome was opened to No. 15, and divided from right to left, and from behind forwards, the neck of the bladder and internal parts of the prostate. This was followed by much struggling of the patient; the gorgeret and forceps were introduced; the stone broke and was extracted piecemeal; it was as large, when whole, as a hen's egg, and appeared to consist of uric acid. Hæmorrhage to the extent of eight ounces occurred; three injections were thrown up, and a canula and plug of linen around it introduced into the wound; the whole was then covered with a T bandage. It is needless to go into the details of this csse; suffice it to say that all went on well. By the 7th suppuration was established in the wound: for some time the urine continued to flow through it, but at last it was voided wholly by the urethra, and on the 10th of August the patient was discharged perfectly cured.

Case 2. Scache, æt. 46, of sanguineous temperament, entered the Hotel Dieu, Sept. 5th, for calculus, to which he had been subject, more or less, since the age of seven years. For some time before admission he had been in the habit of passing, at intervals, urethral calculi, and about a month before this period he had passed a lumbricus, eleven inches and a half long, giving rise to the suspicion that there existed a communication between the bladder and rectum.

On sounding the bladder, M. Dupuytren discovered a stone, which on the 14th, was removed in fragments by the operation, as described above, without any hæmorrhage. In the evening cepha-

lalgia came on, which was removed by bleeding. Next day colicky pains—bleeding to eight ounces, emollient cataplasm. From this time he continued slowly to improve, under the use of pills composed of Venice turpentine, gr. xl. acetate of lead, gr. iv. extract of white henbane, gr. vj. At the latter end of October he was discharged cured; the urine, however, still being slightly catarrhal.

There is nothing particular in the operation of M. Breschet. Both cases did well.

Recto-vesical Operation.—Case 1. Varnet, æt. 19, of melancholic temperament, entered the Hotel Dieu on the 4th October, 1823, with symptoms of stone of three years' standing. On sounding, calculus was easily discovered. Oct. 10th. The operation was performed by M. Sanson in the following manner. The staff being passed into the urethra, the membranous portion of this canal was divided by a longitudinal incision, carried from behind forwards on the medium line of the perineum. Into this incision, a probe-pointed bistoury was introduced, and the prostate, neck of the bladder and its lower wall divided to the extent of about fifteen lines above the anus. A large stone was then extracted. No accident whatever happened, except that, in spite of cauterization, the wound in the rectum remained open, and loss of power to retain the urine was the consequence. M. Sanson has learnt that, since his discharge, the wound is contracting, and in a fair way to cicatrization.

The next case did well—the wound healed perfectly, and the patient was discharged, cured in a month from his admission.

Remarks. M. Royer Collard, the reporter, observes, on the subject of hæmorrhage, that when internal, it may be recognized by these symptoms: the patient feels weight and uneasiness in the region of the bladder, arising from its distension; frequent desire to make water, which, however, he cannot pass; the cheek becomes blanched, at times even fits of syncope succeed, from which the patient recovers only on the accession of fresh pain. On examining the epigastrium, a tumour will be felt, formed by the distended bladder. To stop this hæmorrhage, plugging, as was employed in the first case, is had recourse to. A silver or platina canula, three inches long, and five lines in diameter, terminating at one end in a cul de sac, pierced by numerous holes, is to be procured. At some distance from this extremity, a covering (*chemise*) of fine linen is attached, the canula introduced through the wound into the bladder, and between it and the *chemise* lint is to be stuffed, sufficient by its pressure to stop the hæmorrhage. The canula is to be secured by tapes and a bandage. If the bladder be already full, it is necessary to clear it out by injection, before introducing the canula.

From the small number of cases here detailed, and from their being all fortunate ones, no very accurate inferences can, of course, be drawn, as to the comparative merits of the several operations. Sufficient, however, has been brought forward on former occasions, as

well as on this, to satisfy us that the recto-vesical operation is decidedly objectionable. The occurrence of fistula after its employment is not only likely to happen, but in at least five cases out of ten, actually does happen. There are six or seven cases adduced here, to show that these fistulæ will often, after a certain time, take on the healing process. But, granting that the fistulous communication remain open only for a year or so, the case is still bad enough in all conscience; and there is a chance of the disease continuing for a much longer period. The recto-vesical operation will never come into general use.

We shall now return to the Clinical Report of M. Roux, at the Faculté.

Two cases of strangulated hernia are related, the first an inguinal, and successfully operated on: the second, crural, and fatal, in consequence of the laceration of the intestine by the upper pillar of the ring, in the endeavour to draw it out. On examination after death, the knuckle of intestine was found not gangrenous, but so soft as to be very easily torn through This should teach a surgeon caution in handling a strangulated gut. The operator was Mr. Wessely, an English student.

Tumours. Larochette, æt. 27, blind and deaf, had a large steatomatous tumour removed from the region of the right parotid gland on the 16th April. All went on well—the wound was nearly cicatrized, when the patient grew weaker, and died, without any symptoms of internal disease. On dissection, all were surprised to see the marks of a most intense peritonitis.

Case 2. Durand, æt. 44, robust, but of a highly irritable constitution, entered the hospital on the 4th May, with an encysted tumour, the size of a turkey's egg, on the forepart of the right knee. This was removed by M. Velpeau on the 5th, under the direction of M. Roux. Tumefaction of the limb, fever, great excitement, irritability, and even delirium succeeded, and in spite of bleedings and anodynes the patient expired on the 10th.

Dissection 36 hours after Death. Putrefaction had made remarkably rapid progress. The veins of the limb operated on were inflamed to a very trifling extent, and the cellular tissue infiltrated with serum. The veins of the dura mater were rather congested, but no other morbid appearance was to be seen. On dissecting the tumour, it was found to be a bursa mucosa, its structure altered, and containing partly its proper synovia, and partly a fluid more pultaceous, and seemingly the product of inflammation.

Remarks. This case exemplifies the mischievious consequences which will occasionally, though rarely, attend operations on the bursæ mucosæ. The degree of irritation produced in patients of nervous habits by the removal of these bodies is sometimes astonishing, whilst in others they may be treated very roughly, without the slightest ill effects. The patient in this case evidently died of the high degree of constitutional excitement produced by the operation,

for there is nothing in the post mortem appearances to account for the fatal result.

Bleeding Polypus. Massenet, æt. 13, entered the hospital, Nov. 25th, with a polypus of eight months' standing in the left nostril. It had been tied once and extirpated twice, and each time a considerable hæmorrhage occurred. M. Roux decided on entirpating it, and seized it with the forceps, but such was the toughness of the tumour that the forceps broke. The pedicle was then cut asross by a straight probe-pointed bistoury, when such a hæmorrhage occurred, that it was necessary to suspend the operation and plug the nostril. Fever appeared, sore throat succeeded, the patient became comatose, and died on the 6th day from the operation.

Dissection. The tumour was attached to the back part of the roof of the nose—it was fibrous—of a reddish-grey colour—little vascular, but so tough as not to be torn through with the fingers. The bony palate was necrosed, and its mucous membrane, with the gum, detached; pharynx inflamed; pus between it and the spine, and the upper vertebral articulations themselves much altered.

Seven operations for cataract took place, only four of them successful. M. Velpeau apologizes for this, by saying that the majority of the subjects were in a condition by no means favourable for extraction, the method which M. Roux generally adopts.

Inflammation of the Muscular Coat of the Bladder.—Case. Maurican, æt. 44, was suddenly seized, on the 5th February, with violent pains in the hypogastrium and difficulty of making water. He was admitted on the 8th. Nausea, small pulse, hypogastric pain, but no swelling. Twelve ounces of limpid water were drawn off by the catheter; the symptoms, however, increased, and on the 10th he died.

Necropsy. The bladder was found contracted, thickened in its parietes to the extent of an inch, and in the midst of its muscular fibres purulent matter was effused. There was also infiltration of pus in the cellular membrane around, and the peritoneum in the pelvis was inflamed.

Some cases are here detailed, where injuries about the hand were followed by excessive inflammation of the synovial membrane and sheaths of the tendons, ending in sloughing, death of the bones, and a fatal issue, in spite of amputation of the limb. These cases it would be needless to particularize, especially as M. Velpeau promises a memoir on the subject.

We have now concluded our analysis of this paper, and have little to add to what we have remarked on some of the individual cases. We may observe, however, that this report is drawn up in a very ingenuous and candid manner, that the practice is detailed as it really was, and that even where errors or oversights have been committed, they are stated fairly and manfully. This is as it should be.

P.S. In the second number of the Répertoire, appears the continuation of the series of experiments on lithotomy, instituted by

M. M. Breschet, Dupuytren, and Sanson, at the Hôtel Dieu. During the three months which have elapsed since the last report, M. Breschet and M. Dupuytren have each performed their respective operations twice, and with success. There is nothing particular in these cases, and it would be useless to detail them here. The fifth case, however, which occurred to M. Sanson, and in which he performed the recto-vesical operation, we think worthy of notice.

Case. Duplessis, æt. 65, entered the Hôtel Dieu, March 31st. 1826, with strong symptoms of stone. He was decrepid beyond his years, his respiration was hurried, his voice feeble, the least muscular effort occasioned dyspnœa, and the pulse was feeble and irregular. The suffering on making water was excessive. On sounding, a calculus was distinctly felt in the bladder. On the 8th or 10th of April, the lithontriptic process was attempted by M. Meirien, in the presence of M. M. Breschet, Dupuytren, Sanson, and the éléves of the hospital; but, after five and twenty minutes spent in fruitless endeavours to seize the stone, the attempt was given over. Some fever, with incontinence of urine, ensued, and these symptoms were followed, on the 13th, by a swelling of the left testicle. Leeches, lotions, &c. were applied, and by the 1st of May the organ had regained its natural size. On the 13th of this month the recto-vesical operation was performed by M. Sanson in the manner we have described above. The stone was extracted with little difficulty; its long diameter was about 16 lines, its short about 10, and its surface was very rough. Some degree of depression of the system took place after the operation, but on the next day a slight re-action followed, which, however was checked before night. Pain in the hypogastrium, irregularity and intermissions of the pulse, cephalalgia, and torpidity of the bowels now showed themselves, the urine flowing almost entirely by the wound. From the 20th to the 25th the patient was better, complaining of little else than the irritation of the skin produced by the dribbling of urine from the wound. Obstinate torpidity of the bowels again appeared, the skin around the anus became excoriated, and, finally ulcerated; extreme prostration of body and mind supervened; solid fæces collected in the rectum and were obliged to be eked out by a spatula—the tongue became dry—the abdomen exquisitely tender, and on the 13th June the unfortunate patient expired.

Dissection. The peritoneal cavity contained between two and three pints of an opaque, flocculent fluid—the convolutions of the intestines were agglutinated by inflammation, and the large intestine was distended with solid fæces. The bladder itself was natural, except that its mucous membrane was a little coloured. The lips of the wound in the urethra, prostate and bladder were wide apart, in fact no attempt at adhesion had taken place. The prostate itself was so altered by suppuration that it was impossible to distinguish the ejaculatory ducts. All the cellular membrane of the pelvis was one vast abscess. The right kidney was soft and much altered, the left nearly as much so. Cavities of the heart dilated, and their walls ; aorta at its origin covered with numerous

patches of ossification; about an ounce of serum in the cavity of each pleura.

Remarks. It would be hardly fair to cite this as a case which proves against the recto-vesical operation, for we much question whether any operation would have succeeded here. A man of 65, with symptoms of disease of the heart or large vessels, and a highly irritable habit, is no very good subject for lithotomy in whatever way performed. But still the more we see, or rather read of M. Sanson's method, the more we are convinced that it neither will, nor deserves to, become general. The recoveries are uniformly tedious, fistula not an uncommon consequence, and this case has shown, that it may produce extensive suppuration in the cellular membrane of the pelvis.

11. CANCER OF THE PENIS.*

(Clinique de La Pitié.)

M. Lisfranc was often surprised, on amputating the penis, to find that the disease had not extended nearly so far as it appeared to do previously to the operation; and consequently he was led to the idea of making, in future, a kind of exploratory operation, before he ventured to remove the organ in toto. This exploration consists in making, on the dorsal face of the penis, an incision, parallel with the *axis* of this organ, commencing at the anterior part of the carcinomatous portion, and carried backwards to its posterior. The knife should be directed slowly along the parts, cutting by light strokes through the degenerated mass. By carefully sponging, the surgeon will thus come down (as if cutting on a hernial sac) to the fibrous envelope of the corpus cavernosum penis. If this be found sound, a careful dissection of the diseased parts may be effected, and the necessity of amputation avoided. If on the contrary, the disease is ascertained to have spread its roots too deeply, the organ must be sacrificed. M. Lisfranc thinks that the addition of pain which this exploration occasions, should not be put in competition with the chance thus afforded of preserving the organ. We shall now proceed to the statement of two cases in illustration.

Case 1. John Roussel, 27 years of age, was admitted into La Pitie, on the 6th of June, 1826. Some months previously he had had a paraphymosis succeeding a gonorrhœa, and which required an operation to set it free. The part had continued painful ever since, notwithstanding the use of antiphlogistic and antisyphilitic medicines. The pain afterwards became lancinating and insupportable. When received into hospital, the prepuce was observed to be retracted behind the gland, forming a dense, red ring, the thickness of a person's thumb, and apparently making part with the body of the penis.

* Sur le Diagnostic des Divers Degrés de Profundeurs des Cancers de la Verge, &c. Par M. E. Margot. [La Pitié.] *Revue Medicale, Decembre*, 1826.

There were two points in a state of ulceration, discharging a thin fetid pus. The pain was very distressing, the pulse hard and quick. Twelve ounces of blood were taken from the arm—emollient poultices were applied—and the patient put upon low diet. These means were continued till the 10th, when an operation was practised. Every thing was prepared for amputation of the penis, in case the malady was found to amalgamate with the corpus cavernosum. A longitudinal incision was made, in the manner before-mentioned, from the posterior to the anterior portion of the tumour, penetrating slowly down to the fibrous envelope of the corpus cavernosum, carefully sponging away the blood as they proceeded. It was clearly ascertained that the said fibrous envelope was sound. It was therefore determined to dissect away the whole of the disease, which was no easy operation. The patient was intractable, and it was necessary to be careful in removing the whole of the disorganized mass, without injuring the body of the penis. Opposite to the two ulcerated points it was found that the fibrous envelope was partially diseased. The diseased portion was removed, and the whole mass finally dissected away, without injuring the urethra. Some vessels were next secured, and the operation completed. Simple dressings were applied, and the patient carried to his bed. Considerable inflammation and sympathetic fever followed, and were met by blood-letting, antiphlogistics, aud poultices. On the 13th, suppuration commenced, and the symptoms were mitigated. Every thing went on favourably; but as it was feared that there was a syphilitic taint in the constitution, the proper remedies to correct this were administered. In order to effect a good cicatrization, the dressings were carefully attended to, and the chloruret of soda was used, in weak solution. By the end of July, the wound was completely healed. The patient has since been seen, and was found perfectly well.

Case 2. J. Chevalier, aged 46 years, entered La Pitie, on the 25th July, 1826, for an old standing cancer of the penis, occupying the whole of the anterior part of the scrotum, the skin covering the pubes, and half of the penis. The right testicle was indurated and enlarged, and the spermatic cord in the same state. The disease had continued long; but the man was so deaf, that little information could be obtained as to the exact history of the case. The patient experienced almost constant lacinating pains, and ulceration prevailed far and wide over the diseased parts. The ulcer had raised and everted edges, with foul yellow sloughs at bottom. The pulse was hard and quick; but the appetite had not failed. He was bled from the arm—his diet reduced—and diluent drinks ordered. The ulcers were poulticed. These means were continued till the 5th August, when the following operation was performed.

A semi-elliptic incision was made, beginning at the crural arch of the right side, an inch from the spine of the os pubis, and ending at the lower part of the scrotum; then carried upwards to the summit of the left testicle. Another incision, commencing from the same origin as the former, descended, and swept round to meet the other

incision, in a manner which cannot well be described in words. M. Lisfranc then dissected away the diseased parts, with great care not to wound the spermatic cord or the testicle. Considerable hæmorrhage occurred during the operation, which was exceedingly difficult. In order to remove the cancerous disease of the penis and integuments over the pubes, incisions and dissections were carefully and adroitly made by M. Lisfranc. On the penis itself, a longitudinal incision was made through the diseased parts, to ascertain how far the roots of the cancer spread. They were found, in some places, to penetrate the fibrous envelope of the corpus cavernosum, and these points were removed either by excision or scraping with the edge of the scapel. The operation was necessarily tedious and excessively difficult; but was, at length, brought to a conclusion, and dressings applied. Strong fever rose after this terrible operation; and next day it was thought proper to remove the dressings. The wound was considered to be in a good condition; "mais cette enorme denudation était affreuse à la vue." The patient was bled, and kept very low. On the 7th the fever was abated; but pain was great, and the wound was red and tumid. Forty leeches were applied to the abdomen and around the wound. Emollient poultices were applied. The penis was greatly swelled; but the swelling was œdematous. By the 11th suppuration was established, and the wound beginning to clean. Some nourishment was allowed. On the 14th the dressings were wetted with the solution of chloruret of soda. By the middle of September the whole surface was healed, and M. Lisfranc presented the patient to the Royal Academy of Medicine, the members of which verified the completion of the cure.

We think M. Lisfranc deserves a civic crown for thus preserving the life of a fellow creature, who, but for this most arduous operation, was doomed to a lingering and torturous death.

12. RHEUMATIC OPHTHALMIA.*

(Glasgow Eye Infirmary.)

In a former number of our contemporary, Mr. Mackenzie offered some observations on *catarrhal* ophthalmia, (No. 11, Med. Chir. Rev. p. 173,) and now takes up the subject of *rheumatic* inflammation of the eye.

1. In respect to this last, it is seated in the albuginea, sclerotica, and periosteum, within and round the orbit.

2. *Redness.* This is zonular, and seated under the conjunctiva, whereas, in the catarrhal ophthalmia, the redness is reticular, and the turgid vessels are evidently conjunctival.

3. In the catarrhal ophthalmia the mucous membrane is inflamed, and there is an increased secretion of mucus. The rheumatic species attacks the fibrous membranes of the eye, and is unattended by any morbid secretion.

4. The *pain* of the catarrhal ophthalmia is compared to the feeling

* Professor Mackenzie. Med. and Phys. Journ. Jan. 1827.

of sand or roughness between the eye-lids—does not extend to the head—and is felt more in the morning, or when the eyes are moved: —the pain of the rheumatic species is pulsative and deep-seated—the chief pain not being in the eye, but round the orbit, in the eye-brow, temple, cheek, and side of the nose. It is severely aggravated between sunset and morning.

Compared with the catarrhal, this species is rare—perhaps one to ten. Its exciting causes may generally be traced to currents of cold air during perspiration, or to cold, in some way applied. It is more seen in middle, than in early or late periods of life. In general, there is no tendency to chemosis in the pure rheumatic ophthalmia, nor do the eye-lids take part in the disease. It is uniformly attended with dimness of vision, slight contraction of the pupil, and sluggishness of the iris. One eye only is, in general, affected, especially at first. The iris becomes slightly discoloured, and the attending iritis may go on to effusion of coagulable lymph within the pupil. The iritis in these cases, however, is not generally very severe. Mr. M. has not seen the disease terminate in any form of suppuration or of ulceration. The access of light is not very distressing. The eye is at first dry and hot; but after blood-letting and proper means have been used, there is a considerable epiphora. The pain is of a stinging kind, extending to the whole of the orb, and greatly increased by heat. Occasionally it is confined exactly to one half of the head. It never ceases entirely while the disease continues; but it varies much in degree, coming on with severity about six o'clock in the evening, and being at its acme about midnight.

Symptomatic fever accompanies the pain, rising *pari passu* with it. The digestive organs are deranged, the bowels confined, and the excretions morbid.

Treatment. Differing from Mr. Wardrop, our author insists upon general and local bleeding. Mr. W. has found little benefit from leeching—Mr. Mackenzie has found great advantage in this measure. Surgeons will differ. Perhaps their patients are of different constitutions. The banks of the Thames and the banks of the Clyde present different aspects. Those who reside on them are not less different in constitution. Mr. M. bleeds from the arm the first day, and the next applies leeches to the temple. If the vascular action continues strong, and the symptoms unrelieved, he repeats the venesection.

Calomel and Opium. This combination has never failed to prove highly useful, "in checking the circum orbital pain, restoring the digestive system to its healthy state, exciting the skin, and dissipating the redness of the eye." Two grains of calomel with one of opium are to be given every night till the gums are affected, when the calomel may be omitted, and ten grains of Dover's powder substituted.

Opiate frictions are serviceable—a large *blister* to the nape of the neck is of much benefit. Topical applications to the eye are of no use; but when the febrile and painful symptoms have abated, the vinum opii may be used. The pupil of the eye ought to be kept

under the influence of belladonna all the time. Gentle aperients—diluents—and in the chronic stage, tonics, especially the arsenical solution, will be necessary.

Three well marked cases are given in illustration, from the journals of the Glasgow Eye Infirmary. These we need not touch. We shall be happy to see Mr. Mackenzie's paper on the third species, or catarrho-rheumatic ophthalmia.

13. CHIRURGICAL CLINIQUE OF SAINT-LOUIS.

(M. M. Richerand and Cloquet.)

This report is drawn up by Mons. Hutin, (interne des hôpitaux,) and commences with a very interesting case of intestinal suture, or entero-raphia, the particulars of which we shall now state.

1. *Operation for Hernia—Wounded Intestine.*—Nicholas le Jume, 41 years of age, entered the St. Louis Hospital, on the 13th of July, 1826, presenting the following symptoms to the house surgeon:—inguinal hernia, on the left side, very large—pain in the abdomen—colick—constipation since the rupture became strangulated (early in the same day)—frequent vomiting—breathing laborious—pulse small, quick, and irregular—features shrunk. The taxis had been ineffectually employed before he came to the hospital, and afterwards by the house-surgeon. M. Cloquet having also tried to reduce the hernia, without success, proceeded to the operation. After laying bare and dividing the hernial sac, several convolutions of intestine presented themselves, greatly distended with gas, the intestinal coats being red and thickened. He proceeded to enlarge the opening of the ring, by the bistoury, carried on the point of the forefinger, upwards and outwards. In withdrawing the knife, an assistant let go a knuckle of intestine, which suddenly glanced on the edge of the instrument, and the consequence was, a transverse incision in the gut, full an inch in extent. Gas and fæcal matters rushed out in abundance. The operator instantly determined to take this opportunity of putting into execution the plan of M. Jobert, who had made a great number of experiments on animals, with the view of trying the results of ligatures applied to intestinal wounds. The protruded intestine was first emptied of its gazeous and other contents, and then three interrupted sutures were made, at convenient distances, across the wound. The plan adopted by M. Jobert, (who assisted at the present operation,) is to plunge the point of the needle in at a little distance from the wound, and then bring it out again near the edge of the cut:—the same is done (inverting the order) at the opposite side of the wound, and thus, when the knot is tied, the peritoneal surfaces come in contact, and a kind of seam is left on the internal surface of the gut, in the line of the wound. Adhesive inflammation soon glues the sides of the wound together, when thus stitched with the peritoneal surfaces in contact. The ligatures being thus applied, the ends were cut close off, and the hernia was returned into the abdomen. In a few hours the patient's bowels acted, the pulse rose, the countenance improved. In the evening he complained of pain in the left iliac region, and of tenderness

in the abdomen generally. Twenty-five leeches were applied to the region above-mentioned, together with emollient fomentations, enemata, &c. The pain went off, and he passed a good night. 14th. Some return of abdominal pain this morning. Leeches were again applied, and the bowels were freely opened. A few days afterwards the bowels became confined, but without any bad symptom, and a dose of castor oil brought away abundant evacuations. From this time the cure went on prosperously, and the patient recovered without a single accident. Since his discharge from the hospital, he has been seen several times, and continues in good health.

2. *Nitrate of Quicksilver.* This metallic preparation is coming into considerable notoriety in France, and especially in the St. Louis Hospital, as a caustic in scrofulous, syphilitic, and even cancerous ulcerations of the face—and in various cutaneous eruptions, which, says the reporter, "have yielded, as if by enchantment, to the action of this new remedy." Some cases are detailed of the efficacy of the nitrate, but we need not insert them here. The nitrate of mercury is a powerful escharotic, and the nitrico-oxyde of mercury has long been employed in this country as a remedial agent of great efficacy, in the form of the unguentum hydrarg. nitrico-oxyde.

3. *Acetate of Lead, as a Sedative in Cancer.* A number of females affected with incurable and most painful cancers of the rectum or uterus, have had their sufferings greatly mitigated by warm baths, in each of which was dissolved an ounce of acetate of lead.

4. *Cranial Fractures.* We have hitherto been accustomed to regard the Continental practice, in regard to sanguineous depletion especially, as very inert. The French are now growing very bold on this point, and probably may soon rival their British neighbours.

In respect to fractures of the cranium, accidents which are very frequent in the St. Louis Hospital, the reporter observes that, the danger does not arise from the mere injury to the bone, but from the injury which the brain sustains then or afterwards. The following is the treatment pursued in the above institution. When the patient is received, he is bled largely—not to 20 or 24 ounces—but to the extent of 80 or 100 ounces—"vingt à vingt-cinque palettes"—after which, derivatives and diluent drinks are prescribed.

Case, in illustration. Piron, a young man of strong constitution, a stone-mason, fell from a scaffold on his head, and was immediately conducted to the hospital, when the surgeon on duty, M. Paillard, found him presenting the following symptoms:—a large wound, with contused edges, on the posterior and lateral part of the left side of the head, denuding the lambdoidal suture, and part of the occipital bone, which was fractured in several directions, and the loose fragments, many of them, depressed. The breathing was slow and deep—pulse small and irregular—face pale—all parts of the body strongly convulsed—penis in a state of erection, and the intellect

deranged. The patient was bled to twenty palettes (eighty ounces) —sinapisms were applied to the feet. The convulsions ceased—the erection of the penis disappeared. Next day the breathing was free—pulse calm—intellectual functions restored. On the fifth day, the patient was so well that he wished to leave the hospital, notwithstanding the fracture of the cranium. It was with difficulty he could be restrained from leaving the institution before the wound was well, which it was in a very short space of time.—*Bibliothèque Medicale, Novembre.*

The above was bold practice, considering the state of the pulse, and condition of the surface; but the end justified the means. It is intended to state a series of cases, exemplifying this decisive system of depletion.

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14. CONSTITUTIONAL PREDISPOSITION TO SCIRRHUS. [St. Georges'.)

Under this head, Mr. Jeffreys has published some cases, in the February Number of the Medical and Physical Journal. The predisposition in question is a melancholy pathological fact, which tends to check the sanguine hopes of the operator, when removing external tumours of the scirrhous character. We shall glance at some of these cases.

Case 1. A woman (aged 45) was admitted into St. George's for a tumour in the right breast. Seven years previously she was operated on by Sir Astley Cooper, at Guy's, for a scirrhous tumour in the same breast. The present tumour commenced soon after the operation above-mentioned, and was now the size of an egg, hard, irregular, scirrhus-like, free and moveable, with only an attachment to the integuments above. The general health appeared good, and the uterine functions had ceased. Some of the absorbent glands in the axilla were slightly enlarged, but not at all indurated. At her own particular request the tumour was removed, and the glands in the axilla subsided to nearly their natural size. She was discharged cured in less than two months. One year afterwards the patient returned "in the last stage of jaundice," being much emaciated, and complaining of occasional acute pain in the epigastric and hypogastric regions. The liver could be felt enlarged. She died in a month from this period.

Dissection. Several small, white, hard tubercles were found under the integuments of the thorax, and a few in the pleura costalis. The lungs were sound. Some serum was effused in the abdomen. The liver was enlarged, indurated, and full of large white tubercles. Some of the mesenteric glands were enlarged and hardened, and a few tubercles were observed under the peritoneal covering of the intestines and bladder.

It is a pity that Mr. Jeffreys did not state what was the condition of the gall-bladder and ducts; and whether the jaundice was occasioned by mechanical obstruction to the course of the bile, or by the organic disease of the liver, as this is a litigated point of pathology at the present moment.

Case 2. This was an aged female of 70, who came into the Hospital, in May, 1826, with a small scirrhous tumour in the left mamma —an indurated mass of glands in the axilla—œdema of the arm—prominence and pain of the abdomen—pain over the sacrum—irritation in making water—furred tongue, and quick pulse. She was, of course, no subject for a surgical operation, and remedial treatment had no other effect than, perhaps, prolonging a wretched existence for six or seven months, when she died.

Dissection. The tubercles in the breast and axilla presented the genuine characters of scirrhus. There was a large tumour in the abdomen exhibiting the same kind of morbid structure, and involving many parts in a mass of adhesive inflammation. Between the rectum and sacrum was another tumour, the size of an orange, embracing the posterior half of the gut, and contracting its calibre. There were also some tubercles in the liver.

This woman only dated her complaints some eight months before she applied for relief at the hospital.

Case 3. A female, aged 44, had had a tumour in the mamma for two years. It presented the character of scirrhus, and some of the axillary glands were enlarged and indurated. She complained of darting pain through the breast, and occasional pain and numbness of the arm. There were two small ulcerations in the mamma. In a week after admission, she was seized with severe erysipelas of the diseased breast, which spread to the side and back, of which she died on the third day.

Dissection. The mammary tumour was genuine scirrhus, and those in the axilla were white tubercles. Within the thorax, immediately under the diseased breast, there was a scirrhous tumour, as large as half an orange, situated between the ribs and pleura.

Although these and many other cases which might be cited, show the general disposition to scirrhous affections in some constitutions; yet, while the ablation of a scirrhous tumour is even occasionally successful, that *ultimum remedium* must be applied, in the absence of palpable proof that this disposition exists.

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15. EXTIRPATION OF THE PAROTID GLAND.

(M. Lisfranc. La Pitié.)

We no longer hear it asserted by eminent surgeons, that the parotid gland cannot be entirely extirpated. We have placed on record, in this Journal, several well-attested cases, and are now about to add another to the list. The operation was performed by M. Lisfranc, the distinguished surgeon of La Pitie.

Case. J. Prevost, aged 60, was received into hospital, on the 1st June, 1826, on account of a fibrous tumour, the size of a man's fist, occupying the region of the parotid gland, and extending beyond that in several directions. Although the tumour was moveable in some directions, it was fixed in others, showing that its roots penetrated deep, and were adherent to the neighbouring bones. Af-

ter a few days of proper regimen, the operation was performed, in La Pitié, on the 5th June. We need not detail the steps of the operation with any degree of minuteness—since the same process will rarely be applicable to two cases. After elliptical incisions had been made, so as to embrace the tumour, and some dissection had been gone into around it, during which several vessels were divided, it was attempted to insulate the disease by the fingers and by the handle of the scalpel; but this was found to be quite impracticable, on account of the number and strength of the ligamentous attachments to the surrounding parts. The surgeon was therefore obliged to have recourse to the knife. A tedious, painful, difficult, and dangerous dissection ensued, but was ultimately crowned with complete success, in the removal of the whole of the diseased parts, including the parotid gland. Some of the attachments went to the transverse processes of the first two cervical vertebræ, and to the stylomastoid process. The carotid artery was completely insulated for some space, and no sign of pulsation could be seen or felt, unless the artery was compressed between the fingers, when the rush of blood through the vessel, at each systole of the heart, communicated the sensation to which the term pulse has been applied. One attachment of the tumour was to the condyle of the lower jaw, and others insinuated themselves between the pterygoid muscles. These were all carefully separated; and in this part of the dissection, a large and powerful column of blood sprang to the height of several feet from the bottom of the wound! It was overcome by pressure. The operation was continued amidst appalling hæmorrhage, by which the patient was, for a time, deprived of sense. After he had revived a little, M. Lisfranc kept pressure on the internal maxillary artery, which was divided, while he proceeded to tie, seriatim, the temporal, transverse, facial, auricular, and mastoid, arteries. The internal maxillary (ou la terminaison de la carotide externe) remained to be secured. With equal difficulty and dexterity, this intrepid surgeon seized and tied this great vessel, amidst deluges of blood; and the operation was finished. The wound was dressed, and the patient put to bed. We need not follow the diurnal reports of the case afterwards. The patient went on remarkably well till the 27th of the same month, the wound gradually filling up. At this time, whether from some dietetic error or other cause, erysipelas of the face took place, attended with vomiting and diarrhœa. Amongst matters thrown up were some preserved cherries. Fever now became developed, and there were evident symptoms of abdominal inflammation. This last was conquered by numerous leeches—the suppuration went on kindly—and the wound was healing fast. On the second of July a relapse took place, and some blood appeared in the stools. After various vacillations, during which the erysipelas appeared and disappeared several times, a colliquative diarrhœa came on, and could not be suppressed. He was carried off by this complaint on the 16th July, six weeks after the operation.

On dissection, the mucous membrane was found inflamed throughout its whole extent and several large ulcerations were discovered, some of which had penetrated through the muscular and peritoneal

coats, and caused extravasation of the intestinal matters into the general cavity of the abdomen. This, of course, was the cause of death. The preparation of the extirpated tumour, including the whole of the parotid gland, was presented to the Academy of Surgery, and there examined by numerous members, who verified the statement of the extirpation. The examination of the part where the operation had been performed, corroborated also the truth of the details already given. It is evident that, as far as the operation was concerned, the surgeon was successful. If he could not control the gastro-enteritic inflammation and ulceration that supervened, there was no blame attached to the surgery of the case.—Revue Medicale, December, 1826.

16. INDURATION OF THE CELLULAR TISSUE.
(South London Dispensary.)

We have, on several occasions, given some accounts of this curious disease, chiefly from foreign authors. Dr. Mac Andrew has recently published an instance of this complaint as it occurred in his dispensary practice. The patient was a boy, 18 months old, who had become feverish about two months previously, and then affected with a diarrhœa and swelling of the lower extremities. These last complaints never left him. The feet, legs, and thighs present a diffused swelling, rendering the skin tense. This swelling has a wax-like appearance, and is nearly colourless, except at one spot, where it has a livid tint. It does not pit, nor is there any pain, on pressure. All the affected parts are cold to the touch. The body is emaciated—the bowels moved nearly twelve times a day. The motions are of a yellow, sometimes greenish hue. Some cretaceous powders were given, and a lotion of spirit and mindererus applied to the parts. In two days the swelling had greatly diminished. He died, however, in a couple of days afterwards. There was nothing unusual in the chest. In the mucous membrane of the bowels there were several portions bearing marks of phlogosis. The cellular membrane of the left leg was much thickened, of a light red colour, dense and unyielding on pressure, presenting a granular appearance, not unlike hepatised lung. Below this there is a layer of gellatinous substance, two lines in thickness, containing a fluid. The muscles were unaffected.

The causes of this strange affection are unknown. The French attribute it to cold. It is generally fatal, and the treatment uncertain. Dr. Underwood almost always found the complaint connected with diarrhœa. The improvement of the general health seems to be the main indication. Friction, pressure, and gentle mercurials may assist in removing the cellular induration.—*Med. and Phys. Journ. No.* 8, *N. S.*

17. DEUTO-IODURE OF MERCURY.
(St. Louis.)

The union of iodine with mercury, is now obtaining a trial at the St. Louis Hospital, and other establishments, in various cutaneous

affections, and is evidently a most powerful application, which bids fair to be of considerable service in certain diseases of the skin, which resist other means, and so often foil all the efforts of the practitioner. Dr. Paillard has lately read a memoir on this subject, at the Royal Academy of Medicine, of which we shall here give some account.

This medicine is prepared by mixing a solution of hydriodate of potash with a solution of deuto-nitrate of quicksilver, when a copious red precipitate falls to the bottom. The nitric acid unites with the potash, while the iodine combines with the mercury, and forms deuto-iodure of quicksilver. It is soluble in a certain proportion of sulphuric, nitric, and acetic ether. One ounce of sulphuric ether will dissolve 14 grains of the deuto-iodure. By evaporation we obtain beautiful red crystals of a parallelogramic form. The other ethers do not dissolve so large a proportion. This medicine may be used internally and externally; but it is with the external application that we have now to do. It may be employed either dissolved, as above, or mixed with hog's lard, in the way of an ointment. The ointment used by M. Biett, consists of 15 grains of deuto-iodure of mercury —two ounces of lard, and 20 drops of essence of bergamotte.

Our author first used the deuto-iodure dissolved in ether, applying it by means of a hair-pencil passed twice or thrice over the parts. The effects were as follows: first, a sensation of cold is perceived, by the evaporation of the ether—next is formed a kind of red crust, by the precipitation of the iodure, causing sometimes a smarting pain, and, in a few instances, small blisters. Ultimately there is a desquamation of the cuticle, with some clefts or indentations. If the brush is passed a good number of times over a part, pain, swelling, and vesication succeed, in the course of a few hours, ultimately followed by a kind of scab, like the crusta lactea of children. These crusts fall off in two or three days, and then the dartrous or other cutaneous affection for which the deuto-iodure was applied, is found to be beneficially modified, and in a state more favourable for the process of cure. Used in this manner, the medicine gives very little pain, and never produces any constitutional disturbance. By such applications our author has seen various cutaneous eruptions removed, and old and rebellious ulcerations healed. But, for many purposes, this form is too mild, especially in cutaneous diseases of long standing, and in engorgements of the glands and cellular membrane of any magnitude. On this account, our author mixed a drachm of the deuto-iodure in an ounce of oil of almonds, expecting by this method to have a preparation possessing considerable caustic powers. At first he applied this liniment with caution, and over a small surface, but afterwards he grew bolder. The layer applied should be in proportion to the degree of cauterisation which is wished. At the first moment of application, the patient feels no pain or heat; but gradually the action of the caustic begins to be perceived. In eight or ten minutes a sense of heat is felt, which increases and changes into burning pain. The neighbouring parts swell, and become hot and painful. In the course of an hour, there is often a discharge of limpid serum from the part. The pain abates in proportion as the application is absorbed or becomes dry.

It generally ceases entirely in the course of four or five hours, leaving only some swelling, which is usually dispersed in the course of one, or, at the most, two days. In a very few cases, the pain of the caustic lasted six or seven hours, and the subsequent swelling two or three days.

In some cases, where the application was made on the face, there came on a sudden salivation, an hour or two after the application was made. M. Manry saw two instances of this kind, in his own practice. The patient may, at any time, mitigate the pain of the caustic, by exposing the part to a current of air, or by fomenting it with any emollient fluid. These fomentations may be made without any danger of washing off the preparation, as this form of the caustic adheres tenaciously to the parts.

This preparation is partly absorbed, and partly desiccated. It combines with the most superficial tissues, producing crusts or scales, which fall off in three or four days, either spontaneously, or by the aid of a fomentation or poultice. The surface beneath generally presents a vermilion aspect, and is strongly disposed to cicatrisation. Our author has seen instances where, in two or three days, the skin being covered with dartrous ulcerations, the cellular substance gorged, thickened, and studded with enlarged glands—the swelling disappeared, the engorgement greatly diminished, and the pain and irritation previously existing ceased.

In scrofulous swellings the caustic effects of this application are little perceptible, during the first or second trial; but absorption appears to commence before any cauterisation obtains. In the course of the third or fourth application to indolent scrofulous swellings, pain and inflammation are produced, along with the other phenomena described above, and then the absorption and diminution of the original engorgement become daily perceptible.

It is to be observed, however, that, in some instances, certain constitutional symptoms were excited, such as fever, malaise, colicky pains in the bowels, and diarrhœa. In no instance did these prove serious; but still they show that the medicine is a powerful one, and that part of it is absorbed. Our readers will readily see that this application may be used for several purposes, where we now apply common caustic and the potential cautery. We have not space for the cases treated at the St. Louis by our author. They are published in detail, in the Nouvelle Bibliotheque, for December, 1826.

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18. AMAUROSIS CURED BY LONG-CONTINUED VOMITING.

(Hospital of Florence.)

This curious case is related by Professor Polidoro, of Florence, and the particulars are as follow:—A female, aged 30 years, of pale lymphatic temperament, had experienced, when only seven years old, a long febrile affection, together with convulsions, and paralysis of some of the members. When these phenomena disappeared, there came on a severe pain in the right orbit and neighbouring parts, with complete blindness of that side, nothing appearing wrong

in the coats or humours of the organ. This pain continued till the patient was 20 years of age, when she happened to fall down a flight of stairs. This accident was followed by an abundant discharge of muco-purulent matters from the nostrils, and then the pain in the orbit ceased. In the beginning of Nov. 1825, she began to experience pains, sometimes in one, sometimes in the other side of the head, accompanied by a sense of tension. Towards the end of the same month, the *left* eye became the seat of a very severe pulsating pain, soon followed by blindness of that eye also, so that she could now scarcely discern light from darkness. Blood-letting, local and general, was several times practised, together with blisters, &c. but no relief had been obtained. On the 9th December, Professor Polidoro examined the patient attentively, and nothing particular could be observed in the state of the eyes, except dilitation of the pupils, with insensibility to the brightest light, blindness, squinting, and a pale corneous spot at the bottom of the right eye. She refused to have a seton, but took a grain of tartar-emetic in eight ounces of the infusum arnicæ montanæ. 11*th*. Two grains of the tartrite were given in the same vehicle—vomiting induced. 12*th*. The same medicine, and the same effect. Some vision in the *left* eye. 13*th*. The same medicine. After vomiting, she experienced a tensive pain at the bottom of the orbits. Liquid stools followed the vomiting. 14*th*. Same treatment. She could now see to thread a needle with the left eye. The same medicine was continued. 17*th*. She begins to have some slight vision with the *right* eye, which had been blind for more than 20 years. The nitrate is continued, but does not produce vomiting. 19*th*. The dose is increased to three grains of the tartrite daily. 20*th*. Several vomitings by this last dose. She can distinguish some objects faintly by means of the right eye alone. 24*th*. She could now read with the *left* eye, and could distinguish letters of a certain size with the *right*, but not in their proper place. 25*th*. The pupils contracted to their natural size, and were obedient to light. The patient less frequently vomited than before. 26*th*. She could see the buttons on a person's coat with the right eye, and the sight of the left was nearly as good as ever. She now demanded permission to go from the hospital, and she was discharged towards the end of February, 1826. She has since been seen, and continues to preserve her sight.—*Journ. Complem. Nov.* 1826.

It is evident that the optic nerves and retina, in this case, were not disorganized, but only their functions prevented by some deposition which has been removed by the long-continued vomiting which was perseveringly employed, and most patiently submitted to. The powerful absorption which obtains under the action of emetics, is not sufficiently appreciated in this country—or, at least, we do not avail ourselves of this mode of exciting the absorbents so much as we ought to do. When we speak of *exciting the absorbents*, we know that we are treading on tender ground; but we are speaking practically rather than physiologically; and, on such terms, we say that vomiting *increases absorption*—whether by directly or indirectly *exciting* the absorbents, is not very material.

Quarterly Periscope
OF
PRACTICAL MEDICINE;
BEING
The Spirit of the Medical Journals,
Foreign and Domestic;
WITH COMMENTARIES.

PART III.
ANALECTA.

"Nihil est aliud magnum quam multa minuta."

1. DIVISION OF MEDICINE INTO PHYSIC AND SURGERY.

Mr. Lawrence's introductory lecture to his Spring Course has been published in the Lancet, No. 181, and the lecturer has exerted all his talents and rhetoric to prove, that no real distinction or line of demarcation can be drawn between physic and surgery, whether we look to education or practice. We shall here bring forward a document, showing how far Mr. Lawrence has been original in his arguments and illustrations, on this point of medical jurisprudence. The following paper was written and published by the Editor of this Journal, *ten years ago*, and may be seen in the 4th volume of the Medico-Chirurgical Journal, pages 342—7. It will be evident that Mr. Lawrence has taken the arguments, the illustrations, and almost the identical expressions of this paper for his introductory lecture.

"The boundaries between physic and surgery have not till this moment been defined—a strong presumption that nature does not sanction them! The distinction of internal and external diseases is any thing but correct or satisfactory. Gout, for instance, alternates with erysipelas. In the first form the physician claims it as his own; in the second, the surgeon steps in, and demands the treatment. But is not the erysipelas in this case, and indeed in almost every other case, dependent upon an internal, or what is termed a constitutional cause? and can it be, with any degree of safety, treated as a topical affection? Here, then, must not Physic and Surgery be united?*

* "When we look to the nature, causes, and treatment of diseases, the distinction between internal and external appears pre-eminently absurd. Internal causes produce external diseases, and external agencies affect internal parts. Erysipelas, gout, carbuncle, œdema, exemplify the former—pneumonia, catarrh, and many forms of rheumatism, the latter."—*Lawrence.*

"The same may be said of anthrax, and a great majority of inflammatory affections, whose prominent and apparent seats are indeed external, but whose cause and origin are internal. If the surgeon treats them without the aid of physic, he does wrong: the physician considers them as out of his province; and if he does undertake the cure, he must use surgical means with medicinal. How preposterous would it be to have a physician combating the cause, and a surgeon the effect—or, more correctly speaking, to employ the physician to lop off one arm of the disease, while the surgeon is busy in extirpating the other! Either, then, the physician and surgeon must be of one opinion, and consequently be equally informed on the subject, or the practitioner must unite physic and surgery in his own person. In short, the distinction between internal and external diseases has no more foundation in nature or truth, than that between diseases of the *right and of the left side* of the body.*

"The allotment of all diseases requiring *manual* assistance to the department of surgery would create equal confusion. A patient is seized wih violent pneumonia. The physician is sent for: he declares that venesection is immediately necessary, and the paramount remedial measure. But in these times the surgeon no longer obeys the orders of the physician; they are independent of each other, and act only from their own judgment. But, granting that a bleeder is procured to act under the physician, and things go on well for a time, it may and does happen that pneumonia terminates in empyema. Then comes the difficulty. It is surely as necessary (indeed it is much more so) to know *when*, as how, to perform an operation. The surgeon, on whom the responsibility of the operation rests, must select *his* time for the performance, and for that purpose *ought* to know the nature and exact state of the case as well as the physician. Here physic and surgery must be again united.

"On the other hand, let us take the purest surgical case—a compound fracture of the leg. When the surgeon has reduced the fracture, and comfortably adjusted the limb on a pillow, his work is far from being finished. The local will soon produce general derangement, and the whole fabric of the constitution will be in danger without physical aid. Here, then, as a contrast to the first example, the physician will be set to work on the *effect*, while the surgeon is occupied with the *cause!* What matchless absurdity! But will it be said, that the febrile commotion excited by the fracture differs in any essential point, either in its nature or treatment, from that occasioned by an internal inflammation, as of the lungs? By no means. Yet the latter is placed exclusively under the physician, and the former under the surgeon. The distinction then, between local and general diseases, can not be maintained, since organs the most distant are sympathetically influenced, and constantly drawn into consentaneous derangement. All diseases, in fact, are local in their origin. They commence in one organ or set of organs, spreading to all others with more or less rapidity, according to the degree of lesion and importance of function in the organ first affected.

"A late eminent French writer, (Richerand,) who by the bye seems no great friend to the separation of physic from surgery, proposes a new classification of diseases for the more accurately distinguishing the limits of the two branches. All diseases, according to him, may be said to consist in physical derangements, organic affections, and lesions of the vital powers —'lesions des propriétés vitales.' To the former only, or *physical derangements*, consisting of wounds, dislocations, obstructions, &c. and

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* "If you must have a distinction, separate the disease of the *right and left side*, or of the upper and lower half."—*Lawrence.*

their consequent operations, he would confine the province of surgery, leaving a wide field, indeed, to Messieurs les Medecins. 'Les lesions physiques sont presque toujours le resultat de l'action d'un corps exterieur sur le notre; ce sont des effets méchaniques d'une cause qui l'est ellemême. Les plaies ou solutions de continuité produites par un instrument tranchant, piquant ou contondant; les fractures occasionées par l'alongement forcé du tissu osseux; les luxations amenées par la violence des mouvemens imprimés a nos parties; une hernie, resultat de l'effort méchanique des puissances expiratoires, reconnaissent une cause physique, apporte a nos fonctione un obstacle mechanique, et reclament pour leur guérison, l'emploi des moyens du meme ordre.'

"According to this scale, the surgeon might still, as he does now, claim the treatment of a chancre, as being the effect of '*un corps exterieur*;' but, as soon as the virus had shifted its seat from the prepuce to the tonsil, the physician would say, 'Now is my turn!' But does the treatment of a venereal sore in the former situation differ from that in the latter? And if not, why not? seeing that they are treated by different orders of the profession? Here physic and surgery are evidently interlocked. Well may Monsieur Richerand say, 'Ces matières *Medico-Chirurgicales* peuvent, ce me semble, être comparées à ce crepuscule qui conduit du jour à l'obscurité.' But, taking M. Richerand on his own ground, I would ask him, can the external impression of rain, and a piercing cold wind on the surface of the body, checking the perspiration, breaking the balance of the circulation, and inducing pneumonia, be considered strictly, and philosophically, less '*une action d'un corps exterieur sur le notre*,' than the puncture of a bayonet, producing the same effect? Yet, in one case, the inflammation 'le *resultat* de l'action, &c.' is medical, and in the other it is surgical! What are intermittent fevers—typhus, the plague itself, but the effects of foreign bodies on our own? What is hydrophobia? What is traumatic tetanus, but '*le resultat de l'action, &c.*'

"In no possible way can we find any natural or just distinctions between physic and surgery; and yet I do not object to the distinctions in *practice*. It is against the idea of a difference in *education and study* that the above remarks are levelled. It is morally impossible that a man can be a good physician without knowing the principles of surgery; and it is still more absurd to think that a man can be a good surgeon without being intimately acquainted with the principles of physic.* If it be objected that an intimate acquaintance with the minutiæ of both branches is too much for one person to acquire, I answer, 1st. in the words of Richerand, 'l'etendue de la science ne justifie point les *limites arbitraires* que l'on voulu tracer entre ses diverses parties.' 2d. I am of opinion, that it is much more easy to acquire a profound knowledge of both branches, than of either one separately; and for the reasons already stated, that the two sciences are interlocked at all points, even the apparently most distant; for instance, *pneumonia and fracture*. Hence, to attempt to learn the one without the other, is to tie up one of our arms when we commence a mechanical trade!

"Is it not absurd to say, that a *moderate* knowledge of anatomy and surgery is useful to the physician, and deny that a *minute* knowledge would be still more so? As for the surgeon, he can not move a step in safety, without an intimate knowledge of all the laws of the animal œconomy, which the physician studies and observes.† His very operations for the removal

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* "These remarks apply only to the *study* of the medical profession, which must be learnt as a whole."—*Lawrence.*

† "I can not quit this subject, without impressing on you most earnestly

of diseases that would otherwise prove mortal, are inflictions that often require the most consummate knowledge of physic to counteract. What madness, then, for the surgical student to direct his attention so exclusively, as he too often does, to the study of anatomy and surgery, when he is assured by grey hairs, that nine-tenths of his future professional labours (whatever line he may take) will be what are termed purely medical! Let him compare M. Richerand's list of 'Physical Lesions' with the long black catalogue of organic and vital; and he will see that it is but a drop of water in the ocean.

"Not that anatomy and surgery are not to be most minutely studied; but I would say, that these branches are only parts of a grand whole, *all* of which must be studied with *equal care*, or every branch is imperfect.

"Let us glance at the great disorders of the three principal cavities of the body. Is idiopathic phrenitis more dangerous and difficult to treat than that from a fracture of the skull? Are idiopathic convulsions more terrible than those from a splinter of bone driven through the coverings of the encephalon? Is idiopathic tetanus more fatal than traumatic? In what consists the difference between idiopathic and traumatic pleuritis, pulmonitis, carditis, diaphragmitis, hepatitis, gastritis, splenitis, enteritis, peritonitis, cystitis?—None. Or, if there be any difference, the difficulty and the danger are on the side of surgery.

"What then remains? Fever? Does the hectic of the lungs exhibit a greater spectacle of horror and emaciation than the hectic of lumbar abscess, or disease of the hip-joint? Is the inflammatory fever resulting from aërial vicissitudes to be compared with that supervening on a lacerated member or crashed knee-joint, where the dire commotion threatens every instant to annihilate the living fabric at a blow? The typhoid fevers differ in no respect from the ulterior stages of inflammatory and symptomatic fevers.

"Seeing, then, that the greatest and most dangerous diseases, both in physic and surgery, to which humanity is subject, are completely identified, is it not evident that the surgeon, in acquiring a knowledge of *these*, must, in course, acquire a knowledge of the minor and intermediate maladies, which are reckoned *Medico-Chirurgical* by both professions? And, is it not evident from these premises, that the surgeon, if properly qualified, must add to the *science* of the physician the *art* of operating? Anatomy, physiology, and surgery, are merely the first steps by which the student gains a footing on the hill of science. When he can unravel the brain without a light, or take up the external iliac blindfold, he is scarcely advanced a day's march on the great journey of medical science. These, which are termed, and justly, elementary branches, are little more than the alphabet of medicine, though they are considered at the beginning as the ultima thulé of professional knowledge. The surgical student thinks himself armed at all points; but every year's subsequent experience shows him more and more his own ignorance!

"In fine, physic and surgery are only parts of a grand whole; one can not be properly known without the other, no more than navigation can be learnt without the aid of arithmetic. The distinctions between the two branches can not be drawn or maintained, even in the largest cities. To be convinced of this, let any one sit down by the side of Cooper and Abernethy for a day, and he will see these illustrious surgeons lopping off nine surgical

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the advantages—nay, the necessity, of studying *medicine* comprehensively."—*Lawrence.*

cases with the quicksilver pill and infusion of cascarilla, for every one which they remove by the knife or by caustic. But what is more extraordinary, he will see patients of all ranks afflicted with purely *physical* diseases, resort to surgeons for advice. Hence it is evident, that the general sense of mankind acknowledges not the artificial divisions which we have made in the profession.

"Nevertheless, the separation of physic from *operative* surgery, whatever violence it may do to Nature, is probably productive of good to both branches. There are few minds capable of resisting the seductions of the scalpel, where a bold and surgical genius is bestowed by nature. The eclat of operations eclipses the slow, and dull, and too often unsatisfactory march of medical science; and constant application to one line begets of course, a facility and dexterity that can not be otherwise attained. The deficit in other branches is not felt in a great city or public institution, where the patient is surrounded by all ranks and degrees of the Faculty. On the other hand, the physician, liberated from the anxieties of the operation-room, brings a calm unruffled mind to the investigation of the infinitely varied phænomena of disease. A close attention to these, generates, without a doubt, a quickness of apprehension, a fertility of resource, and an accuracy of diagnosis, to which but the *favoured few* of surgeons can pretend. But, except the purely *operative* part of surgery, medical and surgical *practice* is completely blended, for the best of all reasons, that medical and surgical diseases are essentially the same. Hence it is incumbent on the young physician to *study* surgery at least, and to dissect as assiduously as though he were designed for the operation room; while the surgical student may be assured that *medicine* is his sheet anchor at last; and that whatever degree of accuracy he may attain as an anatomist, or dexterity as a surgeon, yet, without pathology and therapeutics, these brilliant acquisitions will avail him little in his professional journey through life."

We leave it to the public, and to Mr. Lawrence himself, to decide whether all the arguments and illustrations brought forward in this celebrated introductory lecture, have not been anticipated, and even more forcibly urged, in the article which we have here republished. Mr. Lawrence's lecture is characterized in the Lancet as a "brilliant effort," to show how impossible and foolish is the arbitrary distinction attempted to be drawn between physic and surgery. But we shall soon see that the same arguments, coming from an other quarter, will be considered, by the same impartial judge, as ridiculous and imbecile. The learned lecturer has not only trodden the same ground as the writer of the article here republished, but has come to the identical conclusions on all the different points—namely, first, that the distinction between physic and surgery is baseless: secondly, that the education should be the same for both, or as nearly so as possible: and, lastly, that the various branches being first studied, the division of labour may afterwards be advantageous to the public, and beneficial to science.*

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* "I do not contend that every one should practise all parts; and I am fully aware that the field is far too extensive for one individual to cultivate the whole minutely, with a view to further improvement. No doubt that one, who has received a general medical education, may improve a particular department, if he should have his time fully occupied with it; and that circumstances of taste, convenience, situation, and public opinion, may thus lead to subdivisions in practice with advantage to the public and benefit to science."—*Lawrence.*

2. ILEUS, FROM CALCULOUS CONCRETIONS.

[From the Spanish.]

A lady of Barcelona, 50 years of age, of very sedentary habits, and subject to hysteria, was seized, on the 8th March, 1822, with acute pain in the epigastric and right hypochondriac region, under the false ribs. The pain was so violent that she was forced to cry out repeatedly, and could not bear the slightest pressure on the parts. There was no tension or swelling of the parts. The tongue was moist and clean—no fever—pulse feeble—no motion for [illegible] hours previously. *Lavements—Hoffman's anodyne liquor.* The pain continued unabated during the 9th, notwithstanding various means were used. On the 10th, the pain was less acute, but there were nausea, and even vomiting, on taking some aliment. No stools from the enemata. 11*th*. Much the same; vomiting continues, accompanied by hiccup—abdomen distended—no passage in the bowels—some fever. 12*th*. Stercoraceous matters were thrown up—no stool—belly more distended. 13*th*. Four ounces of quicksilver were swallowed—and tobacco-smoke was injected *per anum*. The vomiting and other symptoms continued. In the evening, stools and urine passed freely—the vomiting ceased—the belly became soft, and the pain nearly disappeared—good sleep during the night. 14*th*. The vomiting returned. 15*th*. Bilious stools came away, and the other symptoms were mitigated. The patient had some tranquil sleep, from which she awoke free from fever, pain, or thirst, and with some appetite. 16*th*. The abdominal pains returned, and again disappeared, after a copious evacuation of fæcal matters. But, instead of the quicksilver being rendered by stool, the patient passed a calculus, the size of a large chesnut, having a smooth and polished surface. 18*th*. The patient evacuated an other calculus, similar to the former, the size of a pigeon's egg. Next day, a third was passed, of triangular figure, and as large as the second one. In washing this last it broke to pieces, and disclosed a nucleus, around which the concentric layers had formed. The patient was now in full convalescence. On the 20th, the mercury was evacuated, along with much fæcal matter. She was soon quite well. These concretions were analyzed by Professor Ballcells, of Barcelona, and 30 grains gave 20 of cholesterine—5 of inspissated bile—4 of a resinous substance, and one of loss.—*Archives.*

The Spanish author, and M. Julia-Fontanelle, who translates the case, seem to consider these calculi as intestinal concretions. We have not the smallest doubt that they were biliary. It is highly probable that they had passed from the gall-bladder into one of the small intestines—or, perhaps, into the colon, by ulceration. Such an event has happened in this country, as was proved by dissection afterwards—the patient having died of an other disease.

3. SYNCOPE ANGINOSA.

In one of the sittings of the Academy of Medicine, M. Chantourelle read the case of a French nobleman, which deserves some commemoration, although the precise nature of the disease was not verified, as it usually is in France, by dissection.

Case. M. le Duc ————, had enjoyed good health till the age of 58 years. In the month of March, 1826, he began to experience some inconvenience when he walked fast, and on the 12th of the same month he fell down in a state of syncope, which lasted nine or ten minutes, and then he revived, but the action of the heart, and the pulse at the wrist, continued

imperceptible for some time, the breathing being very short. By baths, sinapisms, leeches to the anus, and cordials, the circulation was restored, in some degree, by the third day. On the fifth day he was bled from the arm, when the pulse became still more developed, and the action of the heart could be felt all over the left side of the chest. During the following days the patient was able to get up, take some light food, and even go out in his carriage. At this time, some moral emotion caused a great tumult in the circulating system, and he was again bled. He complained that he could not sleep—the intellectual faculties were quite free. On the 24th of March, the Duke went to church, and in kneeling down, fell into another fit of syncope from which he never recovered.—*Archives, Dec.*

M. Chantourelle saw the corpse four hours after death. The face was pale, but along the whole left side of the thorax there was an enormous sanguineous infiltration. The body was not allowed to be opened. M. Chantourelle informs us that the disease with which the Duke was afflicted, was considered successively to be aneurism of the heart, apoplexy, angina pectoris. We were rather surprised to find that some members of the Academy maintained that the Duke died of pulmonary apoplexy. There cannot be a doubt that the disease was dilatation of the heart, most probably of the passive kind. Rupture of the organ, we should suppose, took place, and gave origin to the appearances of bloody infiltration in the chest.

4. TRANSFUSION IN UTERINE HÆMORRHAGE.

Mr. Brown, a very able practitioner in the Borough, has communicated an interesting case of this kind, in the eighth Number (New Series) of the Medical and Physical Journal. The particulars are as follow:—A female, 30 years of age, was delivered of her tenth child at a quarter before one o'clock, P. M. of the 31st of December. She had always suffered from uterine hæmorrhage on these occasions, and an alarming flooding soon succeeded the present delivery. Mr. B. introduced his hand, and the uterus soon contracted and stopped the hæmorrhage; but the mischief was produced. An alarming collapse ensued, which required brandy, æther, and camphor. These gave only temporary relief. Convulsions and vomiting took place, and again the collapse threatened the life of the patient. Dr. Blundell, Mr. Doubleday, and Mr. Waller were summoned. The latter only could be found. He arrived at half past two o'clock, an hour and three quarters *post partum*. The following was the state of the case:—Lies on her back, with a death-like expression of countenance—extremities of marble coldness—little animal heat in the chest or abdomen—laborious and stertorous respiration—eyelids closed, and eyes insensible to light—pupils fully dilated—jaw fallen—pulse imperceptible at the wrist, and even in the carotids. It was Mr. Brown's firm conviction that the woman was dying; but it was properly determined to give her the chance of transfusion. Thirteen drachms of blood were injected, in the usual manner, at twenty-five minutes to three o'clock. No particular effect seemed to be produced by this operation. In five minutes another injection, of thirteen drachms, was effected; and now the action of the radial artery was felt—the breathing became more free—but the pupils remained dilated, and the eye evinced no sensibility to light. In ten minutes more a third injection was made, the aggregate quantity amounting to about five ounces of blood. The improvement was now more evident. She moved her extremities and uttered a faint ejaculation. Deglutition (before extinct) now enabled her to take three tea-spoonfuls of brandy. It was not, however, till after the fourth injection, that the amelioration was most conspicuous. The pupil now readily contracted on the admission of light—the chest was fully expanded

at each inspiration—the pulse was 120, and equable. She seemed in pain about the left hypogastric region. She recognised her husband and others—and, in short, the urgent danger was evidently over. We need not pursue the details of the case. As is usual after such extreme states of collapse, a pretty violent re-action succeeded, and required even detractions of blood from the head; but the patient completely recovered.

We think that every unbiassed person must here recognise, not merely the safety, but the utility of transfusion. There are some, however, who cannot be convinced. If the patient recovers after transfusion, it was owing to the efforts of Nature, or the effects of other means:—If she dies, the inutility of transfusion is, of course, manifest. There is no species of evidence which can carry conviction to the minds of these people, and, therefore, we shall not waste our own time, or the time of our readers, in argumentation. We advocated the propriety of transfusion, ever since we became acquainted with the first attempts which were made, and we have no cause to withdraw or change our opinions on this subject. Much praise is due to the gentlemen engaged in this transaction, which we consider as one of the most unequivocal proofs of the safety and efficacy of transfusion, which have yet come before the public.

5. RETENTION OF URINE; FALSE PASSAGE.

There is a case of this kind reported lately from Guy's Hospital, and, if the report be correct, there is a lesson contained therein, which surgeons would do well to bear in mind. We know that some surgeons of high repute have great confidence in the powers of nature, when retention of urine is to be treated. A man may be two or three days unable to make water, or, at all events, unable to discharge it as fast as it is secreted—he may be suffering great pain—the bladder may be felt above the pubes—there may be an impossibility of introducing a catheter,—and yet the surgeon will say—"Oh! let him alone, the water will dribble through." It will often do so, we are aware; but it will sometimes dribble through the urethra, behind the structure, into the cellular membrane—or inflammation and suppuration may take place in the neighbourhood of the urinary passage, and when the matter makes its way into the urethra, urine will make its way into the cavity of the abscess, and the consequences may be fatal. The following case, which we shall greatly abridge, appears to have been an instance of this kind.

Case. A middle-aged man was admitted into Guy's, on November 15, 1826, having laboured for some days, under partial retention of urine, and passed none during the preceding 18 hours. Catheterism was attemped (by Mr. B. Cooper) in vain. The patient was bled in a warm bath till faintness was induced; but still the catheter could not be passed into the bladder. Some urine dribbled through, however, after the bath. Still the bladder was felt distended above the pubes, where much tenderness is evinced on pressure. The pulse is small, tongue furred—hiccup. Calomel and opium at bed-time. More attempts were unsuccessfully made with the catheter on the 16th. Leeches to the pubic region. In the evening, Mr. Callaway (who happened to be going round) succeeded in introducing the catheter, and drew off four pints of high-coloured urine. Much relief was now, of course, experienced, and the catheter was mostly kept in the bladder. On the 20th, there were two shivering fits; on the 26th, there was great irritability and restlessness, with irritative fever, and much pain about the membranous part of the urethra, to which leeches were applied.

27*th*. Pus was discharged with the urine. Irritative fever continues. 28*th*. A fluctuating swelling, the size of a walnut, was perceived, immediately anterior to the scrotum, which might be made to disappear by pressure. Swelling and tenderness in the perineum. 29*th*. Swelling in front of the scrotum increased—urine constantly dribbling away. On the 4th Dec. we find that "the abscess has greatly enlarged—it is harder to the touch—and the integuments, to some extent around, have a dark red colour; whilst, in the centre of the swelling, there is a gangrenous spot, nearly the size of a shilling." The constitutional symptoms were in unison with the local affection. An opening was made, and some ill-conditioned pus, mixed with urine, came away. We need not pursue the details any farther. The event may be easily anticipated. The patient died on the evening of the 7th December.

On dissection, a stricture, of considerable firmness, was found in the bulbous portion of the urethra. An abscess had formed externally to the urethra, partly anterior, partly posterior to the seat of stricture. "There was a false passage in the urethra, large enough to admit of the point of a catheter, and it was of about two inches in length; this false passage commenced anteriorly to the stricture, and terminated at a short distance behind it, so that, in all probability, the catheter had taken this course behind, or rather beneath the natural channel, and had thus, as it were, evaded the stricture." The nates were found to be in a sloughy state to some depth; but not apparently from infiltration of urine.—LANCET, No. 179.

This is a very remarkable case; at least in one point of view. It is not often that the point of the catheter, having once ruptured the urethra, and got into the cellular substance, finds its way back into the urethra, beyond the obstruction. We know, indeed, that a stricture may be bored through, as it were; but this curvetting of the catheter out and in of the passage is a phenomenon to which we never heard of any thing, "*simile aut secundum*," before. It is abundantly evident that this new or circumambulant passage, if it really existed as such, must lie at the door of Mr. Callaway, who succeeded in reaching the bladder after Mr. Cooper had failed. Mr. Callaway will doubtless give the public some information on this curious point.

At all events, we think it will be allowed that the danger of puncturing the bladder above the pubes—or of taking the chance of the water "dribbling through," without any assistance, was much less than that of using such force with a catheter as was sufficient to rupture the urethra. This last accident should not happen. The choice will then be between paracentesis vesicæ and the dribbling process. For our own parts, we should much prefer the knife, since there is scarcely any danger in puncturing the bladder above the pubes, but great danger in temporising, as the foregoing case sufficiently shows. It is more than hinted by the reporter, that the swelling under the urethra was not opened in due time. We should have been glad to know what other morbid phenomena presented themselves among the vital viscera. The local disease was inadequate to destroy life, without other sympathetic lesions in one or more of the great organs of the body.

6. SCIATICA CURED BY TURPENTINE.

The ol. terebinth. is one of the *heroic* medicines which our Continental neighbours have ventured to import from this land of specifics. Venesection is evidently performed with a bolder hand since their intercourse with the English—and even calomel is kept in their boutiques, if not actually prescribed, on some rare occasions.

In the November Revue Medicale, M. Piorry has stated a case of severe femoro-popliteal neuralgia, cured by the medicine at the head of this article.

Madam A———, aged 40 years, had been harrassed with violent pains, of a lancinating character, shooting from the pelvis along the thigh, in the direction of the sciatic nerve, and down even to the foot, ever since the month of February, 1826. The pains were increased by the slightest movement, and they were unaccompanied by any visible change in the colour, size, or temperature of the parts. The respiratory and digestive functions were healthy; but an evening access of fever obtained, and terminated in a profuze perspiration in the night. The pains were exasperated during the evening accession. This series of symptoms continued for six months, and resisted the various means that were employed by her physicians. She came under M. Piorry's care on the 6th August. He applied forty leeches in the line of the sciatic nerve—the part was enveloped in a large cataplasm—and baths were afterwards administered. Diluent drinks and low diet were enjoined. A slight amelioration ensued, and the leeches were twice repeated. Still the amendment was very inconsiderable, and, indeed, the third application of the leeches exasperated, rather than soothed the pains. The extract of lettuce was then employed, in full doses, but with only temporary benefit. On the 1st September a large blister was applied, which caused the pain to cease entirely for a time, again to be renewed with equal violence. The oil of turpentine, in the dose of one drachm thrice a day, was given, suspended in syrup and water, by means of yolk of egg. The medicine produced heat at the epigastrium, but no vomiting the first day. The second day it vomited the patient, and the dose was given only twice a day. The patient could feel that the turpentine remained long on the stomach, and it took away the appetite. On the third day the neuralgia was mitigated, and in four days it was quite dissipated, there only remaining a sense of formication, which also disappeared in a day or two more. The patient thought herself cured—began to walk about her room—and left off the medicine. The pains returned, though in a slight degree, and the turpentine was resumed for a few days more, when the recovery was complete.

It appears, from M. Piorry's account, that this medicine is becoming very popular in Paris. If its taste could be disguised, it would prove a valuable addition to our list of therapeutical agents. In our own practice, the patients have complained more of the terebinthinate eructations than of the mere deglutition of the medicine.

We are not informed whether the carbonate of iron was employed in the above case, prior to M. Piorry's attendance. We suspect that it would have cured the disease as speedily as the turpentine, and with much less inconvenience.

We were recently in attendance on a young gentleman who had long been afflicted with violent accessions of palpitation, pain in the region of the heart, in the upper part of the sternum, in the throat, and down along the left arm, as far as the elbow. He had read several medical books, and was convinced that he had aneurism of the heart or some of the large vessels. He, therefore, nearly starved himself, and certainly was a most deplorable looking object, being afraid of walking across his room, lest the aneurism should burst. By this system, and by the purgation and other depletive measures which he pursued, the disease was evidently exasperated. It usually came on in the afternoon, and would sometimes last the whole night, during which the action of the heart could be heard by the bye-standers. When we first saw him the heart was nearly quiet. The chest sounded well in all directions—the action of the heart was heard over only a very moderate space—and no unusual noise accompanied the ventricular or auricular contractions. As he had had no previous illness of any consequence—as he never had rheumatism—and as he had experienced some severe moral afflictions, we were convinced that the disease was of a nervous character.

His stomach was very much out of order, in consequence of the vegetable and fruit diet to which he confined himself, from apprehension of aneurism. The diet was changed—and tonics were given. The symptoms were mitigated, but the paroxysms of palpitation continued to return daily. We then ordered him a drachm of carbonate of iron in some compound confection of senna, (which, by the way, is a very convenient vehicle,) twice a day. In three or four days the paroxysms became trifling in degree. The dose was increased to three drachms daily, and he was soon well.

7. AXILLARY ANEURISM.

Mr. Liston has detailed some cases of Aneurism in our elder brother of the North, the Edinburgh Journal for January, from which we shall notice one, where the subclavian artery was tied, but unsuccessfully.

Case. J. M. J. æt. 43, after travelling from 150 miles in the Highlands, applied, Sept. 12th, 1826, with an aneurismal tumour, the size of a foot-ball, in the right axilla. It passed upwards beneath the clavicle, raising it considerably, and downwards to below the border of the axilla, pressing in the ribs and flattening the chest. Limb of the natural temperature, but paralysed: its upper part hard—the lower œdematous, as was the side of the chest. It appears that about Christmas, 1825, he had fallen on the ice with his arm stretched out; that this was followed by violent pains, which were thought to be rheumatic, and that it was only ten weeks previously that he was made aware of the nature of his complaint. On the 14th, Mr. Liston proceeded to tie the subclavian, assisted by Mr. Mackenzie, and in the presence of Dr. Monro, Dr. Sanders, Dr. Malcolm, and other gentlemen. On exposing the artery, it was found to be much enlarged, and on withdrawing the aneurismal needle, a gush of blood followed, which was restrained by pressure with the finger, and soon stopped. The ligature was tightened, and pulsation in the tumour ceased. Apprehending, however, a return of the hæmorrhage, Mr. L. tied the vessel again three fourths of an inch nearer the heart, and close to the edge of the scalenus anticus. Here the arterial coats were found, if possible, still more diseased.

All went on well for some days, but on the 6th evening the pulse rose from 90 to 120, with increase of pain in the tumour and arm. V. S. ad ℥viij.—anodyne. On the morning of the thirteenth day, some oozing from the wound; in the evening, oozing again, with relief to the pain and throbbing at the root of the neck, and diminution of the tumour. Next day, oozing of putrid blood again, and the patient sank.

Sectio Cadaveris. The tumour was diminished nearly one half in size, but still was of enormous extent. The vessel had given way just below the origin of the thoracica humeraria, and from that point to the edge of the scalenus, it was firmly attached to the tumour, and, in fact, contributed to the formation of its coats. The wound was filled with coagula, and the upper ligature was found detached, embracing a slough, and lying loose among them. The under ligature was still attached, though ulceration had occurred here also, to a considerable extent. This ligature lay in the sac behind the subclavian, and from this perforation had proceeded the hæmorrhage, which occurred on withdrawing the needle until the opening in the sac had in all probability been plugged up by coagulum. At neither of the points of deligation was there much appearance of attempt at reparation. There was no clot in the artery, except at the upper opening, which was soft and bloody; and though the vessel was a good deal contracted, the adhesions were slight; the axillary vein also necessarily passed over the inner part of the sac, adhering firmly to it, and obliterated about three inches below the clavicle. The tumour extended, by a process two

inches in diameter, down to the bend of the arm in the substance of the biceps. The brachial artery below was filled by a firm coagulum; the anastomosing vessels much enlarged; the aorta and innominata were double their original size, and their coats thick and pulpy. Adhesions between the pleuræ on both sides.

Remarks. The fatal event was evidently owing to the morbid state of the artery; and from several cases of axillary aneurism which we have seen, where the coats of the artery were, as here, much diseased, we fear that operations on the subclavian can never be attended with general success. Indeed, looking to the anatomical and *pathological* difficulties which harrass the operator, our only wonder is, that he has been so successful as he has. Mr. Liston doubts the accuracy of Mr. Wardrop's operation on the carotid. He says, "I should think it would puzzle Mr. W., and those who put faith in the efficacy of deligation beyond the sac, to say what effect would have been produced on this aneurism, by including the contracted and obstructed humeral artery in a ligature." But the parallel is hardly a fair one. In Mr. W.'s case, the disease was in its commencement—in this it was far advanced. From the carotid no branches are given off, there is nothing to keep up the current—in the axillary artery it is the reverse. The *principle* of Mr. W.'s operation is to check the circulation through the sac, but tying an obstructed humeral artery could not do this, for the anastomosing vessels were all enlarged; and to bring the case quite into the same circumstances as the carotid, it would be necessary to tie them. Again, the objection to the new operation, of its inefficacy in this case, would apply equally to the common operation, for it really was inefficacious.

To the paper of Mr. Liston a plate is appended, which shows the morbid appearances clearly and satisfactorily; and, from the details of the case, we are sure, that if dexterity on the part of the operator could have saved the patient, this would not have been recorded amongst the fatal instances of axillary aneurism.

8. CLINICAL MEDICINE.*

The subject of medical education has lately excited, and deservedly so, great attention in this country. The clinical education of the student is one of the most important portions of medical education, because on it will greatly depend the future success and reputation of the practitioner. Dr. Clark, whom we have often introduced to the notice of our readers, is well calculated to offer suggestions for the improvement of clinical instruction in this country, in consequence of his long residence in Italy, and his travels on the continent, with the professed view of gleaning useful information on this interesting subject. We hope the patrons and professors of the Edinburgh University will give an attentive perusal and consideration to the suggestions here thrown out, and that they will not allow themselves to be "compelled to *follow* in the march of improvement, when they should have *led*." If they permit private interest and cabal to drown the voice of honour and renown, that famous university may live "to see her halls deserted in the department of science to which she has been indebted for her

* Observations on the System of Teaching Clinical Medicine in the University of Edinburgh, with Suggestions for its Improvement, &c. By James Clark, M.D. 8vo. pp. 30, *sewed*, 1827.

most extended celebrity." She may, indeed, exultingly point to the increased, or increasing number of her medical students; but numerical calculations are dangerous documents to build upon in such cases. Circumstances may render it convenient or necessary to frequent a market for some time after its goods have been deteriorated in value; but other markets may ultimately spring up to rival the old.

Dr. Clark has confined himself, in this pamphlet, to the subject of *Clinical* Instruction, and begins by portraying some of the best plans pursued on the continent, where the greatest attention is paid to this important item of medical education.

Two methods of teaching clinical medicine are adopted in the continental schools—the Hospital Clinic—and the Poly-clinic, or Ambulatory Clinic. The latter corresponds exactly with our dispensaries. In both these institutions, however, the system differs in some very material points from that in use at Edinburgh, or indeed in London. The chief difference consists, 1st, in the more advanced pupils having a part in the treatment of the patients; 2dly, in the greater length of time required of pupils to attend clinical medicine; 3dly, in the manner of appointing the clinical professors.

In the Hospital Clinic, the elder pupils are entrusted to attend to certain patients, of whom they may be said to have the charge, under the immediate inspection of the professor. These pupils draw up the histories of the cases, and are examined on the nature of the disease by the professor, in the presence of the other pupils. "They are also required to point out the symptoms which more especially characterize the disease, and serve to distinguish it from others which it most nearly resembles, and with which it might be confounded; and, finally, to give the prognosis and method of treatment. Those pupils continue to attend the same patients; and at every succeeding visit they examine, under the eye of the professor, the state of the symptoms, inquire into the effects of the remedies prescribed, &c. Of the whole case they keep a faithful record. If the disease should prove fatal, the attending pupil is further required to state, previously to the examination of the body, (a thing which is never omitted,) the morbid conditions which he expects to find, and what he considers to have been the cause of death." 6.

There can be but one opinion as to the great advantage which the pupil must derive from such a discipline; but we fear the temper of John Bull, who subscribes to, and becomes a governor of, an English or Scotch hospital, will not permit such delegation of treatment to the pupil, except on emergencies, when the physician or surgeon is out of the way. We have little hope, therefore, that this clinical regulation will be introduced into our English hospitals, at least for the present.

The *Poly-clinic*, or dispensary practice, is very general over Germany; and at some of the universities, it is the only source of clinical instruction. Those patients who can attend the Dispensary are prescribed for there; acute diseases are attended at the patient's houses.

"The pupil is first exercised in examining the patients that come to the Clinic, under the observation of the professor, and is required to state the nature of the disease, its treatment, &c., as in the Hospital Clinic. The treatment being agreed upon, the pupil writes the prescription, which is examined, modified if necessary, and signed by the professor. After a time, the pupil is entrusted with the care of the out-patients. He is required to draw up an accurate history of each disease under his care, which is submitted to the inspection of the professor, as are also the reports of the progress and treatment of the case. Moreover, when he finds himself in difficulty, or the case appears to the professor to require it, the clinical assist-

ant accompanies him to see the patient, and assists him with his advice. In urgent cases, I believe, the professor also visits the patient; and where the disease proves fatal, he superintends the examination of the body, a practice to which, on the continent, objections are very rarely made." 8.

We are acquainted with some officers of public dispensaries, in this metropolis, who closely approximate to the foregoing plan, and who consequently are of more real utility to the pupil, than any officer of a public hospital can possibly be under existing regulations.

"Let us now compare the Edinburgh Clinic with those described. The patients in the wards are here visited once a day by the professor and pupils. The cases are carefully drawn up by the physician's clerks, and the pupils are permitted to copy them into their own case books. The successive daily reports may be added at each visit, as they are dictated at the bedside of the patient by the professor. To see and hear the professor examine and prescribe for the patients is all that the pupil, generally speaking, has to do with them*; and it is not always an easy matter for him to attain this limited and second-hand communication; the crowd being frequently so great as to deprive a considerable proportion of the pupils of the benefit of seeing and hearing distinctly, either the professor or his patient. There are two clinical lectures given each week, in which the professor explains the nature of the cases, the treatment, &c. These lectures form an excellent part of the clinical system of Edinburgh, and are too much neglected in the foreign universities in general. They are, however, too few in number. A patient may be received into the clinical ward, and pass through the whole course of an acute disease, before the professor has an opportunity of making any remarks on the case in these lectures; but even though made more frequent than they are, they never can, in my opinion, entirely compensate for the want of remarks on the cases, in the clinical wards, such as are made in most foreign clinics. In Edinburgh, the number of patients to be examined, in the period of time to which the visit is limited, renders it impossible to make any remarks of consequence." 11.

Abroad, the pupil is generally required to attend to clinical medicine for four sessions, or two scholastic years—at Edinburgh, only six months' attendance on the clinical course is necessary, and the same length of time at any respectable hospital. Abroad, the graduate must pass a considerable time, after obtaining his degree, before he can enter on the practice of his profession—that time being either in an hospital, or with some practical physician. After the completion of the period of probation, he again undergoes an examination, as to the progress he has made in practical medicine, before he can be admitted to the *Libera Praxis* of his profession. We are ashamed to compare, or rather to contrast, this with what we see done in this country.

We have only one more point to touch upon in this short article. In foreign universities, the clinical professor receives his appointment "expressly in consequence of his qualification to teach *practical medicine*." His duties, as clinical professor, are regarded as by far the most important, and

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* "It is true the pupils may, I believe, visit the patients in the clinical wards in the intervals of the visits; but were many to avail themselves of this privilege, the patients labouring under acute diseases would not benefit by the practice."

in the exercise of this branch he is regularly occupied during the whole academical year. In Edinburgh, the clinical professors hold other chairs—are changed every three months—and cannot devote nearly enough of time to the clinicum. But this is not the worst of the case. The number of patients under each physician renders it absolutely impossible that he can properly examine and explain their cases to the pupils. There ought to be double or treble the number of medical officers, in consequence of which there would be fewer wards for each, and the swarm of pupils would thus be divided into smaller bands. They would then have some chance of seeing and hearing what was going forward.

The same observations apply, *à fortiori*, to the London hospitals, where the rush of pupils, with the surgeons at least, renders success to clinical instruction almost nugatory. The various defects above-mentioned, are proposed by Dr. Clark to be remedied in the following manner:—

"1st, By increasing the period during which the candidate for a medical degree shall be required to attend to clinical medicine; (as without sufficient time he cannot possibly acquire a knowledge of practical medicine, however fair the opportunities held out to him may be;) 2ndly, By increasing the number of clinical professors in office at the same time; 3dly, By diminishing the number of patients under the charge of each professor; 4thly, By increasing the number of clinical lectures; 5thly, By making the office of clinical professor permanent, or fixed at least for a series of years, in the same individuals; and, lastly, by instituting a practical clinic, upon the principle of the poly-clinics of Germany." 19.

We think there cannot be a doubt, among reflecting men, that the only plan of securing the utility of the profession to the public, and the respectability of its members, is to raise the amount, and improve the mode of medical education to the highest degree, compatible with a proper supply for the demands of society. But we are not so Utopian as to imagine that this can be done by levelling all ranks to one denomination, and enforcing one measure of education for all members of the profession. The various gradations in society, and the different modes of remuneration, forbid this equalization and amalgamation. But this we do think, that the present scale of education should be raised in every class of the profession—that of the general practitioner, the operating surgeon and the physician. Each of these classes is now overstocked, and the inevitable consequence is DISTRESS. It is an old proverb, that "where *Poverty* comes in at the door, *Love* creeps out at the window." This may, unfortunately, apply to the medical profession. The inordinate supply creates a tremendous conflict, not merely for reputation, but for bread! The consequences of this competition need not be descanted on. Now, by enhancing the amount of medical education, we place a check upon the redundancy of medical population, while we ensure to the public the very best assistance in time of need. True it is—"and pity 'tis 'twas true," that this extension of education, and the expenses inseparable from it, must prevent the ingress of many a potent mind into the ranks, from sheer want of means to go through the necessary forms. But provision cannot be made for such exceptions. In our, as in other professions, genius and talent must be left to their fate. From time to time they will rise triumphant, in spite of every obstacle opposed by the *res angusta domi*—and what is far worse—by the injustice, the jealousy, and the selfishness of mankind!

We will venture to make one more remark, though it is directly in opposition to the current of popular opinion at the present time. It is this:—That the true and sole test of medical knowledge will not be found in an oral

examination, however carefully conducted. Yet the universal cry is—let a man acquire his knowledge how, where, and when he pleases—but let him prove his acquisition by the test of examination. This is very fine in theory, but it will not work in practice. It is said that, "non ex aliquovis ligno fit mercurius." Be this as it may, we venture to affirm that, by the aid of a good grinder, either in Edinburgh or London, "ex aliquovis ligno fiat medicus." By medicus, we mean a member of any of the three classes of medical society. We shall adduce some facts in illustration. About 30 year ago, when the public services were in great want of medical officers, a considerable number of young men passed examinations under various constituted authorities, (and many of them passed with éclât,) without ever having attended a single lecture or dissection, and without any hospital attendance. The proofs of such attendances were not then narrowly scrutinized. We knew a young man, who, having served three or four years with a country apothecary, came to London, and was employed in the shop of an extensive druggist in the city. He plied his books so well, in the evenings and mornings, that he at length ventured to present himself before the Court of Examiners, in Surgeon's Hall. He answered questions with such accuracy and precision, that the court called him in again, and paid him a public compliment on the extent of his anatomical and surgical acquirements. Yet he had never had one particle of medical education beyond what his master's shop and library afforded him. He had an excellent appointment, in consequence of his brilliant examination, but was soon afterwards drowned in the Bay of Naples. The writer of this article was at Surgeon's Hall at the time this happened, and knows of *many instances* where young men passed excellent examinations with little or no medical education. Several of these have since turned out to be the most able and useful men which the public services can boast of.

We shall not say any thing of what annually takes place in Edinburgh and London, under the magic influence of the professed grinder. But to show how imperfectly a man's attainments can be scrutinized by a verbal examination, we must take leave to refer to the recent rejection of Dr. John Mason Good, after an examination by the president and censors of the College of Physicians—all of whom, we believe, were friendly towards the candidate. Here, then, was one of the most erudite physicians of the age in which we live, after being in extensive practice for many years, and after having published numerous medical works of great merit, unable to make his acquirements patent in an examination which a tyro in the profession might undergo—and ignominiously rejected! Again:—One of the most eloquent medical teachers, popular writers, and successful practitioners of the present day, was rejected, a few years ago, in a public examination. Will it be affirmed, with these and many other similar facts before our eyes, that the public examination is the proper test. We say it forms but a part of the test. The most authentic proofs should be required of *a long and regular medical education*, we care not where obtained. This is the *sine qua non*; for the verbal examination is fallacious. There are men capable of being crammed so brim full of technical *learning*, (it is not knowledge,) that they will answer all questions in anatomy, pathology, and therapeutics, like parrots, and yet they might scarcely be able to tell one tissue or muscle from another; —or distinguish, at the bed-side, between the most opposite diseases.

In respect to the examination of graduates at Edinburgh, we hold the construction and defence of the thesis as a mere bauble. Every candidate for a diploma should be made to walk through the wards of the infirmary, and show his clinical acquirements in the investigation of each complaint that presented itself—in remarks upon the nature and pathology of the disease —and, finally, in prescribing for the actual condition and stage of the malady then obtaining. Such a process as this would, at once, separate the

grinder's chaff from the wheat of clinical observation, assisted by regular study. If, on this point, the writer of this article should be considered as in any respect visionary—" it can only be (as Dr. Clark himself has observed) in his believing that what *is done* in other countries, *may be done* in this, and done with a like benefit to the profession of physic."

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9. ACUTE DUODENITIS—ENCEPHALITIS.

The following case is related by Dr. C. F. Bellingheri, of Turin. A female, of robust constitution, and previously enjoying good health, began, towards the end of July, to feel loss of appetite, and depression of spirits. On the 25th August she experienced aversion towards food, and inclination to vomit—tongue foul—pain in the head—no fever. 26th. Took two ounces of manna, which she vomited. The symptoms continued, and a physician prescribed an emetic of epecacuan and tartarised antimony. Vomiting followed, but nothing particular was discharged from the stomach—the bowels were then acted on. In the evening of this day Dr. B. saw the patient, and found her with fever; loaded tongue, the point of this organ being red; thirst great; inclination to vomit; no pain, even on pressure, in any part of the abdomen. At this period there prevailed an inflammatory fever in Florence, accompanied by considerable determination to the mucous membrane of the bowels; and, as it was suspected that this patient had made rather too free with strong liquors, Dr. B. did not hesitate to consider the disease as partaking of the reigning epidemic, and as consisting chiefly of inflammation of the stomach and bowels, which would soon affect the head. A copious bleeding was prescribed. The blood was not inflamed. Tamarind water, with sugar, for drink. 27th. The head-ache had disappeared—thirst continues, vomiting is still distressing—tongue very foul and yellow—sense of taste much depraved—great aversion to food—the food, when swallowed, produced no pain, or heat, or weight in the stomach, nor any increase of the sickness—neither was there any tenderness, on pressure, in any part of the abdomen. The motions were liquid and yellow—urine red, with a sediment. The fever continues, the pulse being quick and concentrated Another venesection, to the extent of 16 ounces—blood inflamed. Vegetable acid drinks continued. 28th. Same symptoms: numerous leeches to the anus, followed by syncope. 29th. The thirst urgent—tongue thickly coated, red at the tip and sides—frequent efforts to vomit—no pain in the abdomen—stools abundant, liquid, and yellow—less fever to day. Ten grains of ipecacuanha exhibited, which was soon returned, merely with the fluids drunk. Things continued in this state, till the 1st September, when the vomiting was almost incessant, and the fever became more intense than before. In the night delirium came on, but she did not complain of pain in the head—cough and crude mucous expectoration. 2d. September the venesection repeated to 16 ounces—blood buffed, and very consistent. 3d. The delirium has ceased—no pain in the head—none in the abdomen, even on pressure. In the evening, an exacerbation of the fever, and the bleeding was repeated. The blood was now natural, but thick. 4th. The vomiting less frequent—the tongue begins to clean—dejections liquid and black—some miliary eruptions on the skin—general perspiration—urine clear and abundant—pulse rapid, but non-resisting—the patient could give no account of her feelings. These symptoms continued till the 7th, when the head evidently was much affected, and numerous leeches were applied there, while blood was taken from the jugular vein. Blisters, sinapisms, &c. were employed. 8th. Bled from the feet, and ice applied to the head. 9th. Comatose—paralysis of the left arm, with convulsive contractions of the right.

There was now pain, on pressure, in the region of the duodenum, as evinced by signs, rather than words. 10th. Apoplexy closed the scene.

On Dissection, the duodenum was found highly inflamed throughout its whole extent, being of a deep brown colour, and adherent, by means of coagulable lymph, to the neighbouring parts. The stomach was also inflamed, in the vicinity of the pyloric orifice. The rest of the intestinal tube was sound, as were the liver, and other abdominal viscera. In the head, the pia mater was found to be inflamed and injected, particularly over the right hemisphere. The cortical substance of the brain was of a deep ash-colour, and softened. There were more than two ounces of water in the lateral ventricles, of a sero-sanguineous character. "The dissection," says Dr. B. "proves that the disease was a severe acute duodenitis, followed by encephalitis and acute hydrocephalus."

The conclusion which Dr. Bellingheri draws appears to be legitimate, and the case is curious, as showing that so sensitive an organ as the duodenum may be inflamed, and no pain even on pressure, may be complained of. The emetics in this case, very probably aggravated the disease. The extension of the inflammation, from the intestinal canal to the brain, is here finely illustrated.—*Journal Universel des Sciences Medicales.*

10. HYPERTROPHY OF THE HEART AS A CAUSE OF APOPLEXY.*

The coincidence which has been for some years past, observed between hypertrophy of the left ventricle of the heart and apoplexy, is now fixing the attention of pathologists. It is reasonable to suppose, on mechanical principles at least, that if the aortic ventricle acquires a preternatural power of propelling the blood towards the brain, in common with other parts of the body, the delicate structure of the encephalic mass may, in time, suffer, and hæmorrhage may be the result. So, again, on the same principle, any obstruction to the free return of blood by the veins, from the head, in consequence of disease about the right side of the heart, should tend to the same disease as violent impulsion from the aortic system. But mechanical doctrines in pathology are always to be taken with some degree of caution, if not distrust. We must bear in mind that, in the great majority of cases of apoplexy, there is no disease of the heart; but a disease in the brain itself or its vessels. There can be little doubt, however, that where this idiopathic affection of the brain exists, the hypertrophy of the left ventricle may prove a powerful accelerator of the apoplectic attack. Be this as it may, we shall report some of the cases brought forward by Dr. Sablairolles, as facts which are independent of doctrines, and from which the reader may draw his own conclusions. This is the safest plan of proceeding, on the part of the journalist, and the most beneficial for the public.

Case 1. Jean B. aged 45 years, of small stature, and apoplectic constitution, had long been addicted to immoderate indulgence in wine. Formerly of very mild disposition and temper, he had lately become extremely irascible, and could not bear the least contradiction, without flying

* Nouvelles Observations pour servir à l'Histoire de l'Hypersarcose du Ventriell Gauche du Cœur, considerée par Rapport à la Production de l'Apoplexie. Par M Sablairolles, M. D. de Montpellier. *Journal Generale de Medecine, Nov.* 1826.

into a violent passion. He was subject to considerable nasal hæmorrhages, which always relieved intense head-aches, vertigo, palpitations, &c. He had had several acute inflammations. At nine o'clock, in the evening of the 26th January, 1826, after eating and drinking pretty freely, he became suddenly senseless, and on recovering a little, he was perceived to be unable to articulate his words. He was carried to bed, and our author found him with the following symptoms:—Coma, face of a deep red colour, lips blue, mouth drawn to one side, (left,) pulse hard, contracted, and irregular, action of the heart tumultuous, great difficulty of breathing, deglutition impossible, general insensibility, involuntary discharge of urine and fæces. Cold was applied to the head, sinapisms to the legs and feet, leeches to the temples, lavements, &c. In three quarters of an hour—or in two hours from the accession of the attack, he breathed his last.

Dissection. The membranes of the brain were extremely red, and the whole cerebral vascular system greatly distended with blood. On slicing the brain, the blood flowed at each cut of the scalpel. The most rigorous examination could not detect any trace of extravasation of blood in the head.

The heart was more than double its natural size. The parietes of the left ventricle were greatly thickened, and the cavity diminished. The origin of the aorta was enlarged. Nothing particular observable in the right chambers of the heart, except that they were gorged with blood. The mucous membrane of the stomach and small intestines was inflamed.

This is one of the cases which have been occasionally recorded by Morgagni, and others since his time, where apoplexy quickly destroyed life, without any escape of the blood from its proper channels, but only from the general distention of those channels by which the brain was universally compressed. These are the kinds of apoplexy which most rapidly destroy life, or else quickly disappear. If the universal compression is not relieved, the functions dependent on the brain must soon cease; for it is not as in cases of extravasation, where one half or more of the brain remains uninjured, and carries on the functions though imperfectly. On the other hand, these apoplexies from congestion are sometimes more speedily and more easily cured than those dependent on hæmorrhage. There is very little evidence in the above case, that the apoplexy was induced through the instrumentality of the hypertrophia ventriculi sinistri; for, if the parietes of the ventricle were thickened, the capacity of the chamber was lessened—so that although the momentum of the blood might be augmented, the quantum sent from the heart, at each systole, was diminished.

Case 2. Badollin, aged 69 years, had long been a prey to domestic chagrin and misfortunes, at the commencement of which, (18 years previously,) he had an attack of difficulty of breathing, which lasted six weeks, and was attended with violent palpitation of the heart. Since that period, these attacks have occasionally returned, but at long intervals, and not so severe in degree as at first. Towards the close of 1818, these paroxysms assumed all their pristine violence. The action of the heart was precipitate and tumultuous—the recumbent posture on the left side was impossible, and the difficulty of breathing was great. To these symptoms was added a severe pain in the right side of the chest. An eruption took place on the skin of the left side of the thorax, and quickly the symptoms above-mentioned were mitigated. The patient went on rather better till September, 1819, when he was obliged to give up his occupations. The palpitation and dyspnœa were now in a most violent degree—his legs began to swell —effusion took place in the abdomen—the intellectual faculties became

disturbed—the œdema reached the upper extremities, and in this state he was received into the Clinique Interne de la Faculté, where he died in a few days.

Dissection. Besides the general œdema of the extremities, there was sanguineous infiltration into the substance of the brain, and water in the ventricles. There was a large collection of yellow serum in the right side of the chest, and the lungs of that side almost entirely hepatised. There was no water in the pericardium;—the heart was covered with much fat, and was nearly double its natural size. The chambers were dilated, and the parietes of the left ventricle were "visibly thickened." There was a red tinge (which could not be washed off) in the lining membrane of the left vetricle, and on the internal surface of most of the large vessels. The liver was enlarged, and there were unequivocal marks of phlogosis in the mucous membrane of the stomach.

Remarks. We do not see any cogent reason for supposing that the sanguineous infiltration of the brain, in this case, was solely owing to the hypertrophy of the heart. Doubtless the cardiac disease, and the hepatised state of the right lung, were the causes of the general serous effusions; and it is probable that what was called *sanguineous* infiltration in the cerebral substance, was merely *sero-sanguineous* effusion, and not hæmorrhage. The symptoms of apoplexy are no where stated as having occurred before the death of the patient.

Case 3. M. G. aged 54 years, had enjoyed good health till June 1821, when he had an attack of hepatitis, occasioned by distress of mind. This gave way to proper treatment, and two months afterwards he was seized with an intermittent, (quartan,) which resisted every kind of treatment till the end of December of the same year. In the beginning of January, 1822, M. G. on getting out of bed, became suddenly deprived of sense, and on reviving a little, was found hemiplegiac, and unable to speak. He was bled largely and repeatedly, and in two days speech and muscular power were restored. He complained of pain in the head, vertigo, and tinnitus aurium. Leeches, pediluvia, antimonials, &c. apparently restored the patient, in a few days, to health. More than two years elapsed, after this, without any accident, except that he had occasionally frightful dreams, and his breathing was short, on going up an ascent. He was now destined to experience a fresh attack, which ended in paralysis of the right side. This hemiplegia had continued four months, when our author was consulted. The patient complained of violent palpitation, difficulty of breathing, acute head-aches, vertigo, and an irresistible propensity to sleep after meals. The face was injected, the eyes prominent, pulse strong, quick, and irregular. After examining the heart attentively, by auscultation, our author diagnosticated an hypertrophy of the left ventricle. Bleeding, general and local, rigid abstinence, digitalis, counter-irritants, were prescribed. At this interview the sudden decease of a near relation by apoplexy, was imprudently announced to the patient, the effect of which was, *instantaneous death by the same disease!*

Dissection. The membranes of the brain were very much injected, and of a red colour. The right hemisphere presented no appearance of disease. In the centre of the anterior lobe of the *left* hemisphere was a small cavern, the size of a pigeon's egg, filled with black and coagulated blood. The cerebral substance surrounding this apoplectic cyst was changed into a kind of bouillie of a yellowish colour. In the same hemisphere was found, near the fissura magna sylvii, a large quantity of blood, apparently of recent

extravasation, and which had partly made its way into the lateral ventricle of that side This extravasation was evidently the immediate cause of death. There was no alteration of the cerebral structure in the vicinity of this effusion.

The lungs were sound—the heart very much enlarged—the parietes of the left ventricle more than an inch and a half in thickness—auricles dilated, and their coats very thin—nothing remarkable in the abdominal viscera.

This case exemplifies the fact, that a large effusion of blood in the brain, as well as universal congestion, may occasion sudden death. The cyst in the left hemisphere of the brain corresponded with the previous hemiplegia of the right side.

One of the three cases above detailed shows that we are not always to expect a corresponding cyst for each preceding attack of apoplexy. If there be an extravasation of blood, and a succeeding paralysis of any duration, we may be pretty certain of finding the said cysts. Where the apoplectic attack is not followed by distinct paralysis, we may generally conclude, that the pathology of the disease was congestion merely, without rupture of vessels.

How far the foregoing cases corroborate the opinion of hypertrophy of the heart being a cause of apoplexy, we leave to the judgment of our readers. For ourselves, we have no doubt of the truth of this etiological doctrine generally speaking; but we think that one or two of the cases, here detailed, are of equivocal validity on this point, though interesting in other respects.

11. REGENERATION OF THE URETHRA.

In our last Number, page 220, we gave the particulars of a case of "regeneration of sphacelated urethra," by Dr. Brown of Sunderland, as published in the Ed. Journ Med. Science, No. 4. We request that our readers will turn to that case, and re-peruse it, as it is very short. It will be seen, that we doubted not the veracity of Dr. Brown's statements, but the conclusions which he drew from what appeared to him as facts. We have received a long letter from Dr. B. vindicating himself from the imputation of being deceived, or of wishing to deceive others. The *latter* was never imputed to him, and therefore we shall pass it by unnoticed. That he was deceived, is no great imputation; for we believe that there is not a medical man in existence, who has been ten years in extensive practice, and who has not been *a thousand times* deceived. Dr. B. hopes we will "cast off, or rather cast out, the slough of scepticism," in our next number. Dr. B. who is a man of great literary acquirements, and deep philosophy, ought to know that it is not in a man's power to alter either his creed or his scepticism by a voluntary effort. Both are the result of conviction; and there is nothing in Dr. Brown's letter which has shaken our scepticism. It is true Dr. B. has taken the advice and opinion of several eminent practitioners on the case, and they all give it in his favour. This must be very gratifying to him; and we can assure him it is not in the least mortifying to us. The case is fairly before the public, and let that public decide.

One fact, however, which Dr. B. has now brought forward, in proof of the correctness of his opinion, that it was the urethra itself which was extruded from the wound in the left side of the abdomen, deserves to be recorded. It is this:—that the man has since lost all venereal *appetite*. He accounts for this phenomenon, by supposing that the apertures seen in the preparation are the openings of the prostatic ducts. Now, without referring to musty

volumes on this subject, we shall appeal to the experience and observations of surgeons. When the prostatic ducts are cut, or obliterated by inflammation, after lithotomy, the accident *does not destroy*, or even impair, the venereal appetite. It prevents the emission of the seminal fluid, and occasions great distress, of which we have recently seen a remarkable instance; but we maintain that it does not destroy the sexual appetite. These facts before our eyes, no statements in books can make us "cast off the slough of scepticism." Dr. B. no doubt considers us as quite solitary in our scepticism. We beg him, therefore, to peruse the REVUE MEDICALE for November last, pages 280—3, where he will find that the "slough of scepticism" will require his caustic on both sides of the channel. The French reviewer observes, that "tout doit etre *merveilleux* dans cette observation;" and concludes with the following sentence: "Toutefois, nous devons dire ici que l'auteur n'a pas donné assez de details, ni sur la maladie, ni sur la piéce pathologique, *pour lever tous les doutes* que se fait laissera dans l'esprit des lecteurs."

It is but fair to state, that Dr. Brown means to send the preparation to London, in which case we promise to submit it to two or three of the first anatomists of this capital, and publish the result of their examination. Unquestionably those who have seen the preparation have better means of forming a judgment, than we who have only seen the plate. Dr. B. will perceive, that the French journalist is not convinced, any more than ourselves, by the drawing, and therefore we recommend him to send the original to town.

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12. REMARKABLE DISEASE OF THE STOMACH.

The following extraordinary case is related by M. Nacquart, secretary-general to the Medical Society of Paris, in the January number of the JOURNAL GENERAL DE MEDICINE.

Case. Madame S. aged 50 years, had been subject to derangement of the digestive functions all her life, accompanied sometimes by pains in the epigastrium, at others, by nausea or vomitings. These symptoms were mitigated by warm baths, abstemiousness, and amusements, and she had occasionally long intervals of tolerable health. In 1822, the catamenia ceased, and then there came out an herpetic, furfuraceous, and even erysipelatous eruption on the face, which continued more than three months. Some time after this, Madame S. remarked, that the left hypochondrium was somewhat enlarged, as well as all that side of the abdomen. She also felt darting or dragging pains in her stomach. The intumescence was attributed to enlargement of the spleen; meanwhile the epigastrium became tender on pressure, and the stomach refused to digest the lightest aliment. In 1825, she had occasional vomitings of black matters, like coffee grounds, with copious ptyalism of mucous matters from the mouth. The tongue was denuded and painful—constipation obstinate. On the 27th March, 1826, M. Nacquart was called to the patient, and found her excessively emaciated, with an indolent tumour communicating the sensation of a gellatinous fluid, occupying the left hypochondriac fossa, stretching over to the epigastrium, and downwards below the umbilicus. Pressure on this tumour caused borborygmi, and percussion elicited a hollow sound. There was nothing particular in the constitutional symptoms. By a strict regimen, the use of a bandage, and taking the waters of Vichy, the patient mended greatly, the gastric irritability subsiding, and the tumour decreasing in size. But the amendment was of short duration, and the vomitings returned, with general malaise, and sense of burning pain in the stomach. These symptoms again subsided—again the appetite returned

—and what remained of the tumour was soft, but still sonorous. The case was so mysterious, that Dupuytren was called in consultation, (5th of June,) but he could not decide on the nature of the tumour. He was of opinion, however, that the tympanitic character must be owing to some convolutions of intestine placed over it. During the next month, the appetite continued pretty good, but at the expiration of that period, the black vomitings again returned, preceded, as before, by ptyalism, and thus blasting the hopes which the patient had entertained of a recovery. The tumour, in the centre of the epigastrium, now became more apparent, more tender, and the emaciation increased, with œdema of the lower extremities, and diarrhœa. *27th July.* The tumour, for some days past, had become so enlarged, as to dip into the left side of the pelvis. At this time the patient discharged from her stomach more than three pints of a black fluid, mixed with the debris of food formerly taken. Her condition was now very distressing, and she could keep no aliment on her stomach. On the 7th of August, while sitting down in her chair, she uttered a cry, bent herself forward, and with a faint voice averred, that something had given way internally, and produced a burning sensation in the abdomen. She died in 12 hours from this period.

Dissection. The peritoneum was inflamed in several places, and contained two or three pints of turbid fluid, mixed with flocculi and pus. The abdomen being completely opened, the stomach appeared to be divided into two portions—the one on the left forming an immense pouch, descending into the hollow of the ilium, and concealing the whole mass of small intestines on that side—the other portion, or pyloric, not larger in volume than the duodenum. These two portions were connected by a contracted portion, in front of the vertebral column, and in this portion was a circular perforation, about four lines in diameter. The stomach having been entirely isolated, the left division was found to contain about two pints of a brownish fetid matter, mixed with streaks of pus, its mucous lining being softened, discoloured, and presenting extensive arborisations. The peritoneal coat was pale and healthy—the right, or pyloric portion, three or four inches in length, was about the size of the duodenum, and might have been mistaken for it, if the pylorus had not remained intact. The mucous membrane of this division was somewhat thickened, but otherwise sound. The middle, or intervening portion, presented an irregular mass, three or four inches in length, and of unequal diameter, varying from one to two inches. Its parietes were indurated, and there was a canal through its centre of only some lines in calibre. When this portion was slit open, it showed an irregular ulcer, of cancerous aspect, with ragged edges, and with several softened tubercles in its substance, some containing encephaloid matters, some a black and diffluent substance. In one of the sinuosities of this ulceration there was a circular perforation, as above mentioned. The matters contained in the abdomen resembled those found in the stomach. Some convolutions of the intestines were phlogosed and adherent, but the mucous membrane of the duodenum, and all the intestines, were perfectly healthy. The liver and other organs were sound.

It would be useless to speculate on the origin and progress of this terrible disease. The case shows the difficulty of exactly ascertaining the nature of abdominal tumours.

phragm, although the hernia might not have occurred till after the accident above detailed. The fallacy of the "post hoc, ergo propter hoc," proposition is well known. The Editor of this Journal examined the infant of a medical gentleman, (Dr. Golding,) in which there was a large congenital opening in the diaphragm, through which the stomach accidentally passed, and caused the death of the child. Another instance, still more remarkable, has lately been communicated by M. Sigaud to the Royal Society of Medicine of Marseilles, of which we shall here state the particulars.

A young man, 21 years of age, died suddenly, after a fit of indigestion, and the body was examined for the purpose of ascertaining the cause of this sudden and mysterious death. The dissection was performed by M. Sigaud, in the presence of Messrs. Giaud and Magail, when the following notes where recorded. In the left side of the diaphragm there existed a circular aperture, with rounded edges, and at least three inches in diameter, through which aperture a large mass of intestines had penetrated into the left cavity of the thorax, and had there become strangulated, causing the death of the patient. The preparation is preserved in the museum of the Society.—*See Archives Generales, Janvier* 1827, *p.* 130.

Now, had this young man received a penetrating wound in the direction of the diaphragm previously to this sudden death, it might, and probably would, have been said, that the aperture was thus produced, and that death had taken place in consequence of the opening left in the muscular partition between the two cavities.

16. REMITTENT BRONCHO-ENCEPHALITIS.

Under this head M. Broussais has related a curious case in his Journal *(Annales de la Med. Physiolog.)* for October last. The patient, a young man, was attacked with symptoms indicative of inflammatory action in the bronchial membrane, and also in the brain, with violent exacerbations, during which the cough was incessant, and the cephalalgia greatly aggravated by the successions of the cough. After three bleedings from the arm, and several applications of leeches to the temples and neck, the disease took on a decidedly periodical character, and then the sulphate of quinine was administered, with an allowance of light nourishment, especially as no symptoms of gastric irritation were present. The appetite was good, and the tongue clean. The medicine but slightly mitigated the paroxysms of coughing, and presently the skin became permanently hot and dry, the bowels irritable, and the embarrassment of the chest increased, the expectoration being viscid, and brought up with difficulty. The sulphate of quinine was discontinued, and leeches were applied to the lower part of the trachea. The strict antiphlogistic regimen was again adopted. This plan was crowned with success. "What," says M. Broussais, "would have been the result, if we had persevered with the febrifuge, because the disease assumed a periodical character? The patient having lost much blood, the inflammation might not, perhaps, have assumed an acute character, but certainly a chronic gastro-enteritis would have been established, and possibly the bronchial inflammation would have been converted into suppurative pneumonia."

brain and the spinal canal, M. Magendie avers that, in all morbific affections of the brain, as acute and chronic hydrocephalus, in which there is an undue dilatation of one or more ventricles, these "entrées," or communications, become very much enlarged. The experiment of pressure on a spina bifida affecting the head proves the communication in the living body. The following experiment was made by M. Magendie:—he injected four ounces of ink, very gently, into the lower portion of the vertebral canal. This was sufficient to blacken, not only the whole surface of the brain, but the internal surfaces of all the ventricles. Whenever pressure was made on the spinal envelopes, a fresh quantity was pushed into the third ventricle.

In more than fifty bodies of people who had died without any cerebral affection, M. Magendie found from half an ounce to two ounces of fluid in the ventricles of the brain. Care should be taken, however, that the body be not placed in a position to favour the draining of the ventricular fluid into the spinal canal. This eminent physiologist is of opinion that, if the cephalo-rachidien liquor amount to more than two ounces, certain morbid phenomena will be the result, especially serous apoplexy. M. Magendie terminates his memoir with these words:—"is it not remarkable that those parts of the brain, called by the old anatomists, *valvule, aqueduct, bridge*, should have precisely the uses which their names import? It is thus that the valve of Vieussens, or valvula magna cerebelli, performs the office of a valve (soupage) and opposes the exit of fluid from the fourth ventricle. Never did a part better merit its name than the *aqueduct of Sylvius*, since, according to the experiments which I have made, this canal transports the fluid, sometimes from the ventricles to the spine—sometimes from the spine to the head. Finally, that part which has been termed a *pons*, is, in fact, an arcade of medullary matter, placed over the current of fluid which traverses the aqueduct." —*Revue Medicale Janvier.*

14. ACUTE RHEUMATISM.

For several years past, we have occasionally taken opportunities, as they presented themselves, to protest against the indiscriminate practice of blood-letting in acute rheumatism. Venesection is usually carried to a very great extent in this disease; and the state of the blood, the hardness of the pulse, the local inflammation, and other phenomena, appear to justify the depletory measures, in their fullest extent. Yet the course of the disease is seldom shortened by free depletion, even in strong constitutions; while, in weak habits, or where there is a tendency to any disease of an internal organ, we not unfrequently find some metastatic action set up, not, indeed, at the very time of the rheumatic attack, but at a longer or shorter period afterwards, which is of much more serious consequence than the original malady. For many years past we have been in the habit of making minute inquiries into the previous histories of those who have laboured under organic disease of the heart, especially dilatation of that organ, with or without thickening of the parietes. In by far the greater number of cases, rheumatism, of the acute or subacute kind, had preceded the cardiac affection; and the majority of these asserted that they had been freely bled for the rheumatic complaint. It is true that this species of evidence, as to cause and effect, is far from being demonstrative; but, unfortunately, it is such as we are too often obliged to put up with in medical inquiries.

In the Medical and Physical Journal, for February, Dr. A. T. Thomson has detailed four cases of rheumatism, and made some observations on the disease, which we shall briefly notice. Dr. T. conceives that modern experience

has "thrown doubts upon the *inflammatory nature* of rheumatism, and altered the treatment of the disease." He instances the striking resemblance between acute rheumatism and ague, as noticed by Hulse, Morton, and others. "The pain," says he, "when the disease is left to run its course undisturbed, *recurs* periodically every night or every morning, once, at least, in 24 hours." The term "*recur*," however, is only applicable to certain forms of rheumatism; for, in the common acute rheumatism, of every day occurrence, we have remissions and exasperations of the pain, but rarely, if ever, *intermissions*. Where we have regular periodical *recurrence* of the pain, it is then intermittent rheumatic *irritation*, rather than inflammation. In common acute rheumatism, where we have all the attributes of inflammation, dolor, rubor, calor, tumor, we do not see how the "inflammatory nature" of the disease can be doubted. But it does not follow that every inflammation is to be cured by bleeding. Nobody doubts that, when the foot, in gout, is hot, painful, red, and swelled, there is inflammation; but experience has proved that this phlogosis cannot be removed, at least with safety, like that which follows a local injury in a healthy constitution, by bleeding, &c. The specific nature of an inflammation must always modify the treatment. This is the case with acute rheumatism. It is a specific inflammation; often taking on the form of periodical or intermittent irritation.

Dr. Thomson believes that the dread of metastasis, in this disease, has led to the discontinuance of bark; "but experience has demonstrated that this dread is unfounded, and where the employment of this remedy has been prefaced by the exhibition of calomel, tartar-emetic, and opium, with cathartics, he has had no reason whatever, in a practice of twenty-five years, to alter his opinion of its efficacy and safety."

Case 1. A young lady, after exposure to a current of moist air, felt a sudden pain at the inner angle of the left orbit, which was slightly swelled. It extended thence along the brow, and disappeared in the evening. Next day it returned, and disappeared as before; and this went on for eight days, when Dr. T. was called in. The accessions were characterized by febrile and inflammatory symptoms; but the remission every evening was complete, and the lady slept well. Dr. T. prescribed calomel and hyosciamus at night, with saline aperients in the morning, in which was a drachm of the vinum colchici. The next paroxysm was later, but equally severe. Dr. T. prescribed one grain of calomel, a grain and a half of opium, and a quarter of a grain of tartar emetic, every six hours, *dolore urgente*; and a mixture of oil of turpentine with the cinchona, every four hours, *absente dolore*. The paroxysms not only returned later, but became much milder, and soon ceased altogether.

It is curious, and, perhaps, fortunate, that the same disease will often be cured by a great variety of remedies. The above is a very common case in practice. In many instances, we stopped the disease by bark and arsenic, exhibited during a single interval. Such decidedly intermittent irritations or inflammations, as the above case, scarcely require any preparation for that specific, which almost inevitably stops their progress.

Case 2. This patient was also a young lady, who, after a slight shiver in the evening, was seized with such violent pain over the whole head, that Dr. T. was roused out of bed at midnight to attend her. There was no heat of skin —feet cold as marble—feels as if her head were screwed in a vice, and it is sore to the touch—pulse is small and low, &c. Magnesia, colchicum, æther, and camphor julep—pediluvia—castor oil in the morning. There was a remission only of the pain next day. The bark was given till the evening

exacerbation came on. It was violent as before. Next morning, a more marked remission. The bark continued, and an emetic to be taken on the accession of the evening paroxysm. *Third day.* There was but very little pain after the operation of the emetic. It returned, however, at midnight. The bark continued—a dose of blue pill, antimony, and opium, at bed-time. The paroxysms now became later and milder, and soon disappeared.

We cannot think that Dr. Thomson means to designate the above as a case of "acute rheumatism," though it is so headed. There was no pyrexia throughout the complaint. The general state of the pulse was "small and sixty"—the skin cool, or even cold. This is not *acute* rheumatism, but a periodical rheumatic irritation.

The third case related by Dr. Thomson is of a similar nature to the two preceding. The fourth case is the only one which has any pretension to the designation of "acute rheumatism." The patient was a servant, who had been exposed to wet and cold, and was then seized with severe pain in the wrists and ancles. In two days it shifted to the loins, and was accompanied by some heat of skin and fever, with the usual perspirations. He had a daily rigor, succeeded by febrile re-action. Calomel, followed by saline aperients, with colchicum, were given—calomel and opium at night—and oil of turpentine, with bark, through the day. By these remedies he was soon cured.

These cases are selected by Dr. Thomson from among many others, chiefly on account of the combinations in which the cinchona was administered. "The oil of turpentine, in particular, has always appeared to increase the efficacy of the bark." In some constitutions it affected the kidneys, but not often. We have no doubt that Dr. Thomson's plan is a very good one—and, as we said before, several other plans may be equally successful. In the common acute rheumatism we seldom bleed, unless the fever runs very high, and the patient is plethoric. Even then we bleed sparingly. Some calomel and anodyne at night, with saline aperients and colchicum through the day, generally bring the disease to a remittent or even intermittent form, when we give bark and arsenic to finish the cure.

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15. PHLEBITIS—CONSECUTIVE ŒDEMA. PHLEGMASIA DOLENS.

We are of opinion that the paper of Dr. Davis on PHLEGMASIA DOLENS, published in the 12th volume of the Medico-Chirurgical Transactions, has given, and continues to give, an erroneous view of the pathology of the above-mentioned disease, both in this country and on the continent. The experience of medical practitioners has determined phlegmasia dolens to be a disease so rarely fatal, that it was very difficult to find on record a dissection of a case; but now, by identifying the said disease with inflammation of the pelvic or crural veins, we have satis superque of pathological investigations. It was only this night (27th Feb. 1827) that a paper was read, and a preparation sent round, in the Medico-Chirurgical Society, showing a case of phlegmasia dolens in the male, with the crural vein inflamed and plugged up—adding one more proof that the cause of the disease is phlebitis. The more experienced and observant members of the society, however, refused to admit that the case was one of phlegmasia dolens at all—but one of phlebitis, a very different disease, whether we contemplate the symptoms or the termination. There is no doubt, indeed, from the cases published in this and other countries, that *inflammation and obstruction of the iliac veins* may take place, and produce the swelling of the limb, and the death of the patient. But if this were the pathology of phlegmasia dolens, we should have as few instances of recovery as we have

now of death, in that disease. Besides, in all the cases which have been brought forward for the support of this doctrine, the swelling was quite of a different nature from that of phlegmasia dolens. It was *œdematous*, while the swelling in the genuine disease is *elastic*. Lastly, we may add that, in the case published by Dr. Denmark, of phlegmasia dolens, in a male, and which proved fatal at Haslar Hospital, the vein was *not* inflamed or plugged up. In the discussion which took place at the Medico-Chirurgical Society, a case of genuine phlegmasia dolens, in the puerperal state, was brought forward by Dr. Granville, in which the new pathology failed, as there was no phlebitis. Several members, and among others, Dr. Tweedie, physician to the fever-hospital, showed that the disease which is now confounded with genuine phlegmasia dolens, is often seen to take place after puerperal peritonitis, and even common fever; but is quite different in character from the genuine disease.

In respect to the case which was read by Dr. Forbes, the swelling of the leg and thigh took place in the last stage of consumption, and the limb was œdematous in every part. The iliac and inguinal veins were inflamed, and obstructed by a concrete and fibrinous plug. The young man died of the pulmonary disease.

We shall now proceed to some cases brought forward by M. Bailly, of Paris, for the support of the new doctrine, of which he is a staunch advocate.

Case 1. This was the case of Caroline Dunn, detailed by Dr. Davis, and of which we took ample notice in the first volume of this series, page 378-90.

Case 2. This case is recorded by M. Melier. The patient was a female 30 years of age, who, having come to the full term of her second pregnancy, was taken in labour. The child lay crosswise, and the accoucheur proceeded to turn; but while in this operation, the patient screamed violently, and he was forced to desist. A second and a third attempt was also unsuccessful. The woman, however, becoming more weak, and more placable, the child was ultimately turned, and the delivery effected. For the first 36 hours after her accouchment, nothing particular occurred; but at this period, she complained of acute pain in the right iliac region, accompanied by general malaise, and rigors. On the third day, she had fever—the abdomen was tender and tense, especially on the right side. The milk subsided this day from the breasts, and the symptoms indicated approaching peritonitis. Venesection—leeches to the abdomen—fomentations. In spite of these means, the peritonitis made rapid progress. At this time (28th July, 1826,) Dr. Melier was called in, and learnt the preceding history. The pain was now very acute in the belly, particularly in the right side, where the slightest pressure, the succussion of a cough, or any movement of the body, occasioned insupportable torture. Obscure fluctuation was detected in the right ileo-lumbar region. The fever was considerable—the lochia suppressed—pulse small and frequent. The *patient was bled copiously by the application of* 40 *leeches*. Warm bath—fomentations—lavements. 29th, The symptoms were still more severe to-day, and 30 more leeches were applied. Dry cupping was frequently practised on the breasts this day, by which means considerable swelling and some lacteal secretion were induced. There appeared to be some mitigation of the abdominal inflammation. 30th, Rather better. 31st, An exasperation of the symptoms—more leeches—blisters, &c. 1st August, sensibly better to-day. The pain in the right side of the abdomen is not so severe; but a fluctuation

there is still perceptible. From this time there was a gradual amendment, the pain diminishing, and the tumefaction of the abdomen subsiding. Hopes were entertained of her recovery, and Dr. Melier discontinued his visits. The accoucheur continued in attendance; although the fever did not entirely cease, it was very much reduced. There came on, in a few days, a slight discharge from the vagina, of a sanguinolent character, and very fetid; but it was considered to be the remains of the lochia. In a few days more, the discharge suddenly became abundant, and of a purulent appearance. This continued day and night, and was at any time, increased by pressure on the abdomen. The matter was, at first, inodorous, but became afterwards greenish and fetid—the fever assumed the hectic form—debility made great progress. The pain in the ileo-lumber region was now renewed, and presently the lower extremity became infiltrated, first about the foot, then the leg, and ultimately the thigh. On the 16th August, Dr. Melier again came in attendance, and found the patient in a desperate condition, the right leg and thigh swelled and painful. She died on the 17th of the same month.

Dissection. The peritoneum presented universal traces of inflammation, more intense in the right than in the left side. In the right iliac fossa there was a vast abscess, with numerous surrounding adhesions of the intestines. This abscess communicated with the vagina. The uterus was healthy. The external iliac vein, and three or four inches of the crural vein were completely obliterated by a clot of blood and fibrin, resembling a polypous concretion. The parietes of these veins were thickened, and the internal membrane red. There was some pus in the veins. All the other vessels of that side were unaffected.

Here then is one of the cases which are now assimilated with phlegmasia dolens, and from which the pathology of the disease is attempted to be established. We should consider it an insult to the practical reader, if we were to stop a moment to show how dissimilar are the two diseases. Who is it that will not, at once, perceive that the iliac vein, in the above case, partook of the destructive inflammation going on within the abdomen of that side, and thereby became obstructed? That the swelling of the limb was, in a great measure, occasioned by this obstruction to the return of blood, we allow; but all swellings are not of the same nature, nor do they all arise from the same cause; and again we aver that this disease was not phlegmasia dolens.

Case 3. Observed by M. Guiette, surgeon to St. Peter's Hospital, Brussels. The patient was an unmarried female servant, aged 22 years, and who had never been pregnant. She was admitted into the hospital, in the year 1824; for the treatment of a considerable swelling of the lower left extremity—"resembling the œdema which is often seen in puerperal women."* In all other respects, the patient's health was good—all the functions natural and regular. The most accurate examination could not discover any cause for this swelling. No treatment was adopted. In the course of a few days, however, the swelling of the limb became much increased, the pain more intense, and the tension excessive. To these were added constitutional symptoms of irritation, and disorder of the digestive organs. Her nights were now passed in dreadful sufferings. The surgeon in chief

* This is the general expression; but whenever the swelling comes to be particularized by the abettors of the new doctrine, no resemblance whatever is found between the two diseases.—*Ed.*

determined to make scarifications on the inside of the thigh, from which *an abundance of serum issued*. By this remedy and proper regimen, together with fomentations, &c. the malady seemed to yield, and in six weeks the limb was reduced to its normal dimensions. She was discharged apparently cured. But in the course of the next year, the patient returned, with the limb still more swelled than before; and now the swelling had attacked both the lower extremities. The least movement excited insupportable sufferings—the tumefaction was at its utmost degree—*and the swelling pitted on pressure of the finger*. The health of the patient was greatly deranged—digestion difficult—stomach unable to bear, without pain, the lightest nourishment—bowels constipated—breathing short, difficult, and laborious—sanguification imperfect, and face of a blueish tint, as in hydrothorax—pulse small, quick, and irregular—urine obliged to be drawn off daily. At this time, there was felt in the hypogastric region, a hard globular mass, which was supposed to be a scirrhous ovary, or enlarged uterus.

The disease made rapid progress—emaciation advanced—eschars formed on the back, and the patient died.

Dissection. There was no disease in the chest. The abdominal viscera presented nothing extraordinary. On the front of the lumbar vertebræ was a large tumour of a fatty lardaceous nature, in the midst of which was found the ascending cava, greatly enlarged, its diameter being more than two inches and a half. On prosecuting the dissection, the primitive iliac and hypogastric veins, their principal divisions, the cava ascendens, as far as the diaphragm, were found extremely dilated, and filled with a dense, whitish, fibrinous-looking substance, in the centre of which there was a small canal, one line in diameter, through which the venous blood returned from the lower parts of the body. The parietes of these vessels were somewhat thicker than natural, and they were surrounded by degenerated cellular substance. The aorta was not affected. The lower extremities were infiltrated, and their veins much dilated.—*Journal Gen. de Med. January*, 1827.

Here is an other case of *phlegmasia dolens!*—an other proof that the cause of the disease is inflammation and obstruction of the pelvic or iliac veins! It is only necessary to clearly and fairly state these cases, to convince every observant and experienced practitioner that they are not the disease known by the term (however improper) *phlegmasia dolens*.

But the discussion of the new doctrine is very advantageous, and all these cases are interesting specimens of pathology, which are highly deserving of record.

Were we pressed for our own opinion as to the nature of phlegmasia dolens, we would say that it approaches nearer to what is termed diffuse cellular inflammation than to any other malady with which we are acquainted—but that it is not identical with that. In the diffuse cellular inflammation there is a "boggy" feel, to use the expression of Dr. Duncan and others; while in phlegmasia dolens, it is a tense elastic feel. This last disease, too, is not near so dangerous as the former. It is, therefore, a peculiar, or specific malady, *sui generis*, the proximate cause of which is not yet ascertained. But, from all that we have yet seen or heard, we are satisfied that this proximate cause is *not* PHLEBITIS.

16. HERNIA OF THE STOMACH THROUGH THE DIAPHRAGM.

At a late meeting of the Westminster Medical Society, a remarkable case of wound of the diaphragm was detailed by Mr. Hunt. The particulars are as follow:—The patient was stabbed in the left side with a knife, and for a month afterwards his life was in jeopardy. He then recovered from the effects of the wound, but from this time began to suffer from dyspepsia. When Mr. Hunt first saw the patient, nearly 16 months after the injury, he had cough, but unaccompanied by pain, or inability to expand the chest, attended by a peculiar kind of vomiting, apparently more dependent on the action of the stomach itself, than on that of the abdominal muscles and diaphragm. There was no febrile action, the pulse being below 70. Twelve ounces of blood were taken from the arm. Next day the symptoms being much exasperated, a larger quantity of blood was abstracted, and with relief to the patient. To check the slow inflammation which appeared to be going on in the stomach, blisters, &c. were applied to the epigastrium. For eight days the case seemed doing well, but at that time a low remittent fever was set up, which, however, at the end of a week or so, had nearly subsided under proper treatment. In the course of a day or two he became anxious, and was attacked with retching and vomiting of matters resembling coffee grounds. From this period no food could be retained upon the stomach, nor could any passage be procured through the bowels, and on the 5th day he died exhausted.

Dissection. On raising the sternum, a large mass was seen, which at first was thought to be an enlarged heart and pericardium, but which turned out to be the stomach greatly distended, and situated entirely in the left cavity of the thorax. On exposing the cavity of the abdomen, there was found a large opening in the diaphragm to the left, and rather below that for the passage of the œsophagus; it had a smooth and rounded margin, and through it the stomach and part of the duodenum had passed into the chest. It was with great difficulty, owing to the distension of the viscus with fluid, that it could be drawn back through this opening into the abdomen. The lung was apparently uninjured, and the intestinal canal sound, but near the pylorus there were marks of chronic inflammation, with ulceration of the mucous membrane.

Remarks. This is certainly a curious case. The manner in which the stomach got into the thorax, seems, in spite of a good deal of hot discussion which took place on it, simple enough. The knife pierced the diaphragm most probably in expiration. Through this wound a portion of the stomach was forced, partly, no doubt, by the suction power of the chest, as Dr. Barry well observed, but principally by the pressure of the abdominal muscles, and descent of the diaphragm itself. The opening continued to enlarge, and more of the stomach protruded through it, giving rise to irritation, and chronic inflammation of its coats, as shown by the dyspepsia and vomiting. At last the whole of the organ, dragging with it part of the duodenum, became located in the thorax, and it was at this time, in all probability, that the violent retching and vomiting occurred, and that the passage of food through the alimentary canal ceased. The preparation is sent to the museum of the College of Physicians.

The above are the remarks of our correspondent; but we have some doubt as to the supposed wound of the diaphragm in this case. It is not impossible that there might have been a congenital opening in the dia-

phragm, although the hernia might not have occurred till after the accident above detailed. The fallacy of the "post hoc, ergo propter hoc," proposition is well known. The Editor of this Journal examined the infant of a medical gentleman, (Dr. Golding,) in which there was a large congenital opening in the diaphragm, through which the stomach accidentally passed, and caused the death of the child. Another instance, still more remarkable, has lately been communicated by M. Sigaud to the Royal Society of Medicine of Marseilles, of which we shall here state the particulars.

A young man, 21 years of age, died suddenly, after a fit of indigestion, and the body was examined for the purpose of ascertaining the cause of this sudden and mysterious death. The dissection was performed by M. Sigaud, in the presence of Messrs. Giaud and Magail, when the following notes where recorded. In the left side of the diaphragm there existed a circular aperture, with rounded edges, and at least three inches in diameter, through which aperture a large mass of intestines had penetrated into the left cavity of the thorax, and had there become strangulated, causing the death of the patient. The preparation is preserved in the museum of the Society.—*See Archives Generales, Janvier* 1827, *p.* 130.

Now, had this young man received a penetrating wound in the direction of the diaphragm previously to this sudden death, it might, and probably would, have been said, that the aperture was thus produced, and that death had taken place in consequence of the opening left in the muscular partition between the two cavities.

16. REMITTENT BRONCHO-ENCEPHALITIS.

Under this head M. Broussais has related a curious case in his Journal *(Annales de la Med. Physiolog.)* for October last. The patient, a young man, was attacked with symptoms indicative of inflammatory action in the bronchial membrane, and also in the brain, with violent exacerbations, during which the cough was incessant, and the cephalalgia greatly aggravated by the successions of the cough. After three bleedings from the arm, and several applications of leeches to the temples and neck, the disease took on a decidedly periodical character, and then the sulphate of quinine was administered, with an allowance of light nourishment, especially as no symptoms of gastric irritation were present. The appetite was good, and the tongue clean. The medicine but slightly mitigated the paroxysms of coughing, and presently the skin became permanently hot and dry, the bowels irritable, and the embarrassment of the chest increased, the expectoration being viscid, and brought up with difficulty. The sulphate of quinine was discontinued, and leeches were applied to the lower part of the trachea. The strict antiphlogistic regimen was again adopted. This plan was crowned with success. "What," says M. Broussais, "would have been the result, if we had persevered with the febrifuge, because the disease assumed a periodical character? The patient having lost much blood, the inflammation might not, perhaps, have assumed an acute character, but certainly a chronic gastro-enteritis would have been established, and possibly the bronchial inflammation would have been converted into suppurative pneumonia."

EXTRA-LIMITES.

PRIZE HOSPITAL REPORT, NO. I.

Mr. THOS. H. SMITH, Pupil,

ST. THOMAS'S HOSPITAL, BOROUGH.

I.

TWO CASES OF INJURY OF THE SPINE, TREATED BY F. TYRRELL, ESQ. AT ST. THOMAS'S HOSPITAL.

1. *Case of Fracture of the Spine, with displacement; with the Operation, &c.*

JEREMIAH MAHONY, Æt. 26 Yrs. } Isaac's Ward, St. Thomas's Hospital.
Treated by Mr. TYRRELL.

1827,

February 5th. J. M. was brought to the hospital, about 2 o'clock, P. M. on 5th Feb. with the account, that an immense piece of timber (said to weigh near 2 tons) had fallen on his back.

There was paralysis of the lower extremities, with tension, and considerable effusion in the region of the loins; there was also loss of sensation from the tuberosities of the ischia, and, on more minute examination, by Mr. Tyrrell, it appeared evident that there was displacement of the (?) last dorsal or first lumbar vertebra. He was a strong and well made man, and evidently of a good constitution. His pulse was 70 and strong—his feet were at first cold, but soon became warmer. Mr. T ordered his dresser, Mr Whitworth, to apply leeches—fomentation, and afterwards spirit-wash during the night, so as to relieve the tension and effusion as much as possible. The catheter was introduced, he having, of course, lost all power of voiding his urine. *February 6th* From the perseverance of the attendants in the plan ordered last evening, the effusion was considerably lessened, and the depression of the spinous processes could now be much more distinctly felt; therefore Mr. T. could now have not the slightest hesitation as to the plan to be adopted; he having determined, although his former case terminated unsuccessfully, to repeat the operation of removing the arch of the vertebra, which pressed the medulla spinalis, whenever a case favourable for it should present itself; and such the case under consideration appeared to be. Mr. T. therefore, now sent for his able colleague, Mr. Green, in order to have the advantage of his countenance and advice. The pulse was 70 and full—he had had no sleep—complained of much pain in his back, but none elsewhere—feet warm—bowels not yet open.

Operation, by Mr. Tyrrell.

The patient being placed in as favourable a position as possible, with his chest somewhat raised, so as to have the light full on the back, an incision was made over the spinous processes, to the extent of five or six inches, the depressed vertebra being in the centre of the incision. The muscles were then dissected off between the spinous and transverse process of the vertebra above, and the one below, as well as from that which was displaced, so as to expose completely the arches. It was found very useful in this, as in Mr. T.'s former operation, to have two bent pieces of steel, with which the assistants could very satisfactorily keep apart the divided muscles, and bring every stage of the operation within the view of the operator. Having thus exposed the arches of the vertebræ, it was then found that the *inferior* articular processes of the 12th dorsal were thrown *for-*

wards before the superior of the first lumbar; consequently, the arch of the 12th dorsal was brought forwards, and pressing the medulla spinalis, having the superior articular process of the first lumbar vertebra in contact with the inferior part of it.

Mr. T. then proceeded with a chain-saw to take off the spinous process of the 12th dorsal, that he might the more clearly obtain a view of the arch, which it was next his object to remove. In order to accomplish this, Mr. Tyrrell, in his former operation, at first tried a small trephine, as recommended, and, indeed, used by Mr. Cline; but, finding this not to succeed, he was, in that case, under the necessity of finishing the operation with a Hay's saw, which he found much better adapted for the operation. This instrument was therefore, again used, and the arch was sawn through as near as possible to the transverse processes. To thus say "sawn through," would, perhaps, lead to the idea, without further explanation, that it was *at once* divided with impunity; but such was not the case; for so closely was the arch in contact with the dura mater of the spinal chord, as to render it necessary to be extremely cautious; and when a part was sawn through, it was removed by a strong pair of curved forceps: this was repeated several times before the spinal chord was exposed, which was ultimately done without injuring the membrane, which was found entire, without any appearance of effusion; and, as far as could be ascertained by its external appearance, the chord was uninjured. It having been ascertained, by the introduction of a probe, that no pressure remained, the wound was carefully cleaned, and the edges brought together, or nearly so, by a plaster, which Mr Tyrrell uses, composed of emp. thur. c. sapone, covered with simple dressing. The operation lasted less than an hour. Very little blood was lost, and the patient bore it with the greatest fortitude.

He was conveyed to bed, and placed upon his side, rather inclining, however, on his face.

Vesp. Pulse 90 and full—*sensation lower than before the operation.* An elastic gum catheter was introduced, and ordered to be worn in the bladder, by means of which the attendants could, as often as needful, draw off the urine.

7th. Sensation is now about nine inches lower than before the operation—bowels not yet open—pulse 90 and full—has not slept—has some thirst—oozing of a bloody serum from the wound—urine drawn off several times, is plentifully secreted, and natural. The lower extremities are of same temperature as the rest of the body. Ordered enema c. dect. hord, c. sod. mur. R. Ol. ricin. ℥ss. statim et post horas 4, si opus sit. Finally, levigated calamine powder, was ordered to be dusted on the scrotum and in the perineum, to prevent excoriation.

8th. Has slept several hours in the night—the bowels are not open—pulse 94, more full and sharp—appears very cheerful and confident—wound is suppurating—*the sensation is not so low in the extremities as yesterday.*

Ordered. Enema colocynth. Statim, et post hor. vj. si opus sit.

Vesp. Both the clysters had been given, and the bowels have been relieved. In order to keep up the action, the following draught was ordered to be given occasionally. R. Mag. sulph. ℥ij. aq. menth. p. ℥iss. Urine plentiful and natural—extremities continue warm—a little slough on the surface of the wound—complains of rather more pain in and surrounding it—has also a slight pain in the head—pulse as in the morning.

9th. The bowels continue open—has taken the draught three times—he continues in good spirits—has some appetite—has been hitherto allowed arrow-root, sago, and other light food—prickling sensation in the legs—the urine is very plentiful, and now, for the first time, smelt slightly ammoniacal. Pulse 95 and full.

Vesp. The prickling sensation continues in the extremities, and the urine evolves rather more ammoniacal odour than in the morning—pulse 100, but not hard—pain in the head—sensation, on pinching the extremities, not lower than yesterday. The bladder was injected with lukewarm water, which was allowed to pass away immediately; about ½ pint more being then injected, and suffered to remain in till it became again necessary, from the accumulation of the urine, to allow it to pass off. This was ordered to be repeated several times a day. The wound appeared, on dressing it this evening, more healthy than yesterday.

10*th*. His bowels continue open—has some pain in his head—he continues cheerful—his tongue this morning, for the first time, furred—his pulse is not so full as yesterday, and 80—his skin is rather dry, and he feels, he says, slightly feverish—there is a free discharge from the wound. Mr. T. considered it advisable to increase the nutrition of his diet, which had hitherto consited of, as I have before observed, light pudding, sago, arrow-root, &c. He, therefore, ordered him to have daily a beef-steak or mutton chop; this the patient appeared gratified to hear. He took the former to day with a relish: he had also ½ pint of porter; but this, it was found, stimulated him too much, and he afterwards had the table beer of the hospital. He was ordered a fever draught to take occasionally—his urine had been drawn off twice in the night (pint and ½ each time)—it was also drawn off this morning and the bladder injected with warm water as before. The urine was more ammoniacal, and was mixed with a small quantity of thick mucus—there was also a very small portion of blood—continues to have the "darting and prickling" feel (as he describes it) in his legs and thighs—sensation is not quite so low down as last evening.

Vesp. His bowels have not been open since the morning—complains of considerable pain in the wound—sensation is not lower than the crista of the ilium—his pulse more full than in the morning—he also complains of soreness in the chest, and some difficulty of breathing, from his position. Mr. Tyrrell in consequence changed it, placing him on his back with a firm pillow on each side of the wound in the direction of the spine, so as to prevent pressure. He expressed himself very warmly as to the immediate relief this afforded him in his breathing, &c. but as he still complained of soreness he was examined, and a slight redness was perceived in the part. His aperient draught was repeated. The surface of the wound was covered with a slough.

11*th*. Has slept well—feels more easy in his present position—pulse 80 and full—has not so much pain in the head----has still pain in the back, though not so violent as yesterday—tongue white—bowels freely open—has more of the prickling in his legs and thighs—urine plentiful—still ammonaical—bladder injected with water—more mucus mixed with it, but not any blood.

Merid. Enjoyed his mutton chop—continues to take plentifully of arrow root, &c.

Vesp. Pulse 90, rather harder than in the morning—bowels open—rather more restless—dull pain in the bowels, with some soreness of the integuments—his breathing appears a little more hurried than natural—wound still looks rather foul—sensation is not lower than yesterday—there is more mucus mixed with a little blood in the urine this evening—it also emits a stronger ammoniacal odour—ordered to continue the fever mixture and to have tinct. opii gtt. xx. hora somni. Bladder injected as usual.

12*th*. Slept for a few hours last night, but became more restless towards morning—complains of more pain in the bowels which are open—his pulse is as last evening, and his countenance had not the placid appearance it had hitherto borne—there was an expression of pain in it—there was some pain (he did not however complain much of it) in his chest, on the right side, where he had complained of pressure in his first position—sensation is not so low by six inches as yesterday—there is no darting in the legs and thighs nor any pain in the head. The urine is strongly ammoniacal, and has more thick mucus (with a little blood) than yesterday—there is not much pain in the wound—the slough is separated, and it looks more healthy.

Vesp. Urine is plentiful—on the bladder being injected with warm water, much mucus came away—it also smelt very ammoniacal.----bowels open---fæces dark coloured----his countenance expresses more anxiety, and he is not so confident as to his recovery, as he has hitherto been ----has still slight pain in the chest----pulse 90, sharper than in the morning----wound dressed looks as well as in the morning----sensation is not lower than the umbilicus.

13*th*. There is this morning an evident alteration in his appearance----his countenance expresses considerable anxiety---has not slept----pulse 100 and hard ----has considerable pain in right side of the chest, with cough, which increases the pain---bowels open----urine plentiful----having, as before, ammonia----thick mucus and some blood----the wound looks more unhealthy than last evening, having a

slough on the surface---sensation not lower than last evening.

Ordered ----V. S. ad vj. vel viij. ozs. and if this does not afford relief, 12 leeches to be applied to the seat of pain. The meat and beer are to be omitted, but to be still allowed sago, arrow-root or broth.

R. Calomel, gr. j. opii, gr. ss. nocte et mane.

R. Sodæ subcarbonat, ʒiij. mucil. g. acaciæ, ʒss.

R. Tinct. hyosciam. ʒvj. syr. papav. alb. ʒj. aq. menth. ʒvj. ℿ. The patient was directed to take a dessart spoonful of this when the cough was troublesome.

Merid. ʒix. of blood were taken, which presents a buffy appearance—immediately after the bleeding, the pulse became more expanded and soft, but the pain and difficulty of breathing not being relieved, the 12 leeches were applied, which are now bleeding very freely, but his breathing is still laborious—his pulse is 100, though not so hard as in the morning—bowels open—urine drawn and bladder injected. Continues very restless, and his temper which has, till now, been comparatively mild, is very irritable.

10 *o'Clock P. M.* The leeches have continued to bleed very freely---but all his symptoms have now assumed a most alarming aspect. His pulse is 120, full and bounding----has excruciating pain in the side----much greater anxiety of the countenance.----great restlessness----frequent cough, with greater difficulty of breathing----pain in the wound, which looked unhealthy----no sensation below the displaced vertebræ. A much greater evolution of ammoniacal odour from the urine, which contained at least 3 ozs. of mucus mixed with blood.

V. Sectio ad ʒxvj. this had a considerable effect for a time on his pulse, but did not relieve the difficulty of breathing, and but very slightly the pain.

2 *o'Clock A. M.* The pulse has risen to 130, but more feeble----pain and difficulty of breathing much more considerable.

V. S. ad ʒvj. produced but temporary relief, and at 4 o'clock A. M. he died.

He was perfectly sensible till within a short time of his death, when he became delirious, and expressed a wish to get out of bed, but did not attempt it. I mention this as a curious coincidence with Mr. Tyrrell's former case, and also in confirmation of Mr. Bell's statement.

It is to be regretted that no post mortem examination could be obtained, as the poor man's Irish friends interfered, and nothing could induce them to consent to it----application was made to the Coroner for an order, but without effect.

Remarks. Although this case has terminated unfavourably, still, on looking to the immediate cause of death, which, as far as the symptoms inform us, without having the confirmation of a post mortem inspection, was evidently seated in the pleura and lungs; where, it appeared, on inquiry, he had before had an inflammatory attack; we must acknowledge, that as this attack was not a *necessary* consequence either of the accident or treatment, (which is proved by Mr. Tyrrell's former case) it affords, in this point of view, no argument against the mode adopted for the relief of the patient. But it becomes a question whether it is not almost certain, from the symptoms, that death must have eventually, and at no distant period, terminated the case, from the disorganization evidently going on in the bladder, if the fatal attack of pneumonia had not supervened ?---Mr. Tyrrell has, in his remarks on his former case in Sir A. Cooper's Lectures, Vol 2nd. stated "My patient died of inflammation of the bladder, *occasioned by the irritation of the urine*, which, I believe, *might have been prevented;* and I should have taken steps for that purpose, had I known some circumstances connected with Mr. Cline's experiments relative to injuries of the spine." "He invariably found, that, after complete paraplegia was produced by the injury which he inflicted on the spinal marrow of dogs—the bladder became affected from the *action of the urine on its mucous coat.*" "*This organ,*" he continues, "*having lost its nervous power,* it appears that the *urine becomes decomposed in it, as it does after it is voided under ordinary circumstances*, and thus acts as an *irritant* on the *mucous surface.*" "This" says Mr. T. "might probably be *obviated* by frequently *emptying the bladder* with a syringe, and *injecting a fluid* to protect its mucous coat."

It is, however, necessary that these changes should be further investigated the present case entirely disproving the above conclusions—1st, "That the urine is decomposed *in the bladder*"—2dly, That

it is this, which, acting as an irritant on the mucous coat, produces the mischief; and, lastly, That the diorganization may be "obviated" by the means recommended.

For, in the first place, the urine was drawn off so frequently in the present case, as not to allow sufficient time for the decomposition; but, to place the matter beyond a doubt—the following method was adopted:—After the bladder had been emptied of the urine, by means of Read's syringe, (which is admirably adapted to the purpose) warm water was several times injected and withdrawn, till no trace of ammonia could be perceived. A small quantity of clear water was then injected, and allowed to remain about 15 or 20 minutes, when it was allowed to pass off, and the *odour of ammonia could be distinctly perceived.* Now, supposing urine to have been instantly mixed with the water after its injection into the bladder, and that under the "loss of nervous power," it will decompose as quick in as out of it; still, every one is aware, that more time than was allowed, is required, under "ordinary circumstances," out of the bladder, for its decomposition.

It must, therefore, be concluded, that in whatever way the ammonia is formed, it takes place before the urine arrives in the bladder.

2ndly. The same argument is equally applicable to this position, the urine not having probably in this case been allowed to remain sufficiently long to produce the disorganization—but

3dly. In whatever way the disorganization is effected, it is very evident that the means recommended and employed in this case, are perfectly inadequate to the prevention of it; and, as this appears a sine qua non in the successful treatment of these accidents, it still remains an interesting subject for investigation; for it is evident, from the symptoms, that the present case must, ere long, have terminated fatally from the disorganization in the bladder (which it will be seen gradually increased from the 3d or 4th day up to his death) if the fatal attack of pneumonia had not supervened.

An occasional instance may, however, occur where this is not the case. This is exemplified by an interesting case which has within the last few weeks been spoken of at the Borough schools. In this instance, the patient survived a fracture with displacement of the superior lumbar vertebræ, causing paralysis of the lower extremity, 14 years; it was found, on inspecting the body after death, that the spinal chord was completely divided, with the exception of the dura matter. The case is, however, I am told, shortly to be published.

2. *Case of Injury to the Spine.*

W. Stephens, æt 24, was admitted into St. Thomas's Hospital, under Mr. Tyrrel, on the same day as the case before related, February 5th, with total loss of motion and sensation in the lower extremities, and partial loss of motion in the upper, occasioned by being violently thrown, in a scuffle, against the edge of a board, on his back. There was considerable pain between the shoulders, extending down his arms, with some pain in the head. After minute examination, no irregularity could be perceived in the spinous process. Mr. Tyrrell did not, therefore, consider himself justified in proposing an operation. His pulse was 80, and full—ordered to be cupped to 16 ounces, at the back of the neck, after which, a dose of castor oil. The catheter to be introduced.

Vesp. The pain was somewhat relieved by the bleeding.

Feb. 6th. Restless night—countenance rather anxious—pulse 85, full—some pain in the head—tongue rather furred, with some thirst—fæces pass involuntarily.

Vesp. Urine plentifully secreted, did not smell ammoniacal—pulse 95, rather sharp—more pain and restlessness—cupping repeated, which again produced temporary relief; the pulse also became softer.

7th Mane. Slept for a short time after the bleeding last evening, but has since been restless—the lower part of the abdomen tense, somewhat tender on pressure, and slightly distended—the urine was plentifully secreted—did not smell ammoniacal—there was more anxiety of countenance, and greater difficulty of breathing than yesterday:—the latter symptom was, indeed, now the most urgent; it was, therefore, considered probable, that the injury extended to the cervical vertebræ—his pulse was more feeble.

Vesp. Countenance livid, and very anxious—pulse more feeble—bowels evacuated.

8th. Was in every respect worse—pulse more feeble—respiration very difficult—anxiety of countenance and restlessness much increased—urine smelt slightly ammoniacal—no mucus mixed with it. He gradually sunk during the day, and in the evening expired.

Sectio Cadaveris. Before removing the arches of the vertebræ, after having made an incision upon them, considerable effusion of blood was found, and slight displacement of the 7th cervical vertebra forward was perceptible. Having removed the arches, considerable effusion of a bloody serum was found between the pia and dura mater—extending principally from the 5th cervical to the 4th dorsal vertebra. When the spinal chord was removed and examined more accurately, it was found that at the part opposite to the displaced vertebra, it presented a pulpy, homogeneous mass, containing many bloody points. The pia mater was turgid with blood.

The remaining parts of the vertebræ, at the seat of injury, were then removed, when it was found that the 7th cervical was dislocated forward, with fracture of the left inferior oblique process, the right inferior process being dislocated from the corresponding one on the 1st dorsal vertebra—the intervertebral substance between the 7th cervical and 1st dorsal was torn through transversely—the anterior part adherent to the vertebra above, the posterior to that below—there was also a longitudinal fracture through the body of the 3d dorsal vertebra.

The cavities were not examined.

II.

CASE OF VENEREAL LEPRA, FOLLOWING GONORRHŒA AND SUPERFICIAL ULCERATION. TREATED BY F. TYRELL, ESQ. ST. THOMAS'S HOSPITAL.

JAMES BIRBECK, æt. 20, was admitted into Lazarus ward, Feb. 1st. 1827: Had gonorrhœa eight months since, of which he soon recovered; after which, he had superficial ulcers on the glans, which healed in a few days without mercury—took merely six aperient pills.

About a month since, he first found his throat slightly sore, and at the same time had an eruption over the whole body, except the face; it came out at first, he states, "with an itching." Had never any eruption before.

Feb. 1st. There is now superficial ulceration on the tonsils, the right being rather the worst—the eruption is in distinct red patches, somewhat elevated, and covered with scales—if these scales are rubbed off, they will form again in a few hours—on the scale being removed, the red base is rather tender, but no appearance of ulceration. He has also a slight excoriation on the glans-penis—has been under medical treatment three weeks before his admission—taking sulphur, and anointing the eruption with sulph. ointment, but without any benefit.

Ordered. Pil. Plummer. gr. v. om. nocte—decoct. sarsæ. c. ℥xij. in die—mist. aper. pro re-natâ.

Under this plan the excoriations on the penis were removed in two days, and the superficial ulcers on the tonsils were healed in four or five. The scales also separated in about the same period, and they did not re-form, leaving the red patches, which, however, soon became level with the surrounding skin; by continuing the medicine, the eruption became gradually paler, and on the 5th of March they are scarcely visible.

He is to continue the medicine a few days. Not the slightest effect has ever been produced on his gums.

III.

CASES OF INTERMITTENT FEVER.

DR. BROWN, in his work on Intermittent Fever, has stated that "the practice of waiting for the paroxysm and exercising powers to arrest its progress on its first approach, has never been established." Now, as far as the recommendation of a respectable physician, founded on and supported by cases, which were related, illustrating the efficacy of this practice, can be said to establish it, Dr B.'s assertion is disproved; I allude to the recommendation, by Dr. Ridgway, of this plan, in the Number of the Medical and Physical Journal, for April, 1825.

His attention was first directed to this

mode of administering the bark, by a patient taking at one dose, 1½ oz. instead of in divided ones, as ordered: it prevented the expected fit, and produced nothing unpleasant. "Since this period," says Dr. R. "I have never thought of giving the Peruvian bark in divided doses between the paroxysms; but, where I thought it necessary to use this medicine, have uniformly ordered it in one efficient dose, as *near as possible to the approaching paroxysm.*" Dr. R. adds, that he considers an ounce as a sufficient dose in most instances, to avert the paroxysm—this being accomplished, half-ounce doses were afterwards given. Dr. R. twice cured himself in this manner.

Thus we see the principle of Dr. Brown's practice has been before recommended, but he has had the advantage of possessing the bark in a much more convenient form for fulfilling his object; this preparation having, since Dr. Ridgway first adopted the plan under consideration, been brought more under the notice of the profession; and, in availing himself of it, Dr. B. has, in some measure, altered the mode of fulfilling the object which both have in view, viz. preventing or "repelling," as Dr B. calls it, the approaching paroxysm, by giving several smaller, in lieu of one efficient dose, immediately before the paroxysm; but still it will be seen the principle is the same. Whether this alteration in the mode of administering the bark is an improvement, on the one recommended by Dr. R. remains to be proved. The following are, however, the results of several cases treated in St. Thomas's Hospital, by Drs. Williams and Roots, they having, with their usual kindness, consented to try the experiment.

It will be seen that only half the dose recommended by Dr. Ridgway was found necessary.

Case 1. *Treated by Dr. Williams.*

Wm. Cuff, æt. 35.

Feb. 8*th.* Had intermittent fever since Christmas—type quotidian. Bowels regular—slight pain and fulness in left side.

Ordered. R. Pulv. cinchon. ℥ss. p. zingiber. gr. xxv. ℔.

This was ordered to be taken about an hour before the expected paroxysm. Attack not so severe, and much shorter than it had hitherto been—had not, however, taken the bark more than five minutes before the fit came on. Bark did not produce any sickness.

9*th.* Took the dose as yesterday—no attack.

10*th.* Pergat.—no return of paroxysm.

25*th.* Has not had any return of the paroxysm. Continued well up to the 1st of March, when he was discharged.

Case 2. Thos. Olives, æt. 36, *from Sheerness. Under Dr. Williams.*

Feb. 8*th.* Had ague six months—severe cough, does not expectorate—no pain in chest—bowels lax—pulse 80—type, quotidian.

Ordered. R. Pulv. cinchon. ℥ss. p. sing. gr. xxv. Took it an hour before the paroxysm came on; it was very slight. No sickness from bark.

9*th.* Pergat—very slight chill to-day.

25*th.* Not any return of the paroxysms.

March 1*st.* Discharged, cured.

Case 3.—Timothy Flynn, æt. 27.

Feb. 8*th.* Had ague three weeks—health otherwise good—type quotidian. The dose as in former cases—felt but a slight trembling.

9*th.* Pergat—scarcely any cold feel.

10*th.* No attack. 11*th.* The medicine omitted this morning, and he has had an attack of chill.

12*th.* Pergat—no attack. 13*th.* *Rejected the medicine*, and had a more severe attack than the last.

25*th.* Has not had any symptom of ague since.

March 1*st.* Discharged, cured.

In the following case the old plan was adopted, to contrast the effects.

Case 4.—John Kelley, æt. 30.

Feb. 8*th.* Has had intermittent fever two months, daily—bowels regular—some cough at night—pulse 75.

R. Pulv. cinchon. ℥j. 4tis horis, sumend. inter paroxys. opii, gr. j. om. nocte.

8*th* Shook 1 hour and a half. 9*th.* Pergat—paroxysm came on three hours later, and cold stage lasted an hour.

10*th* Pergat—same as yesterday.

11*th.* Pergat—continues the same.

12*th.* Somewhat better—pergat.

16*th.* Had an attack every day, but not so violent—pergat.

19*th.* Is still better—pergat. 25*th.* Has a very slight trembling—pergat—he continued the bark for another week, and was discharged cured.

determined to make scarifications on the inside of the thigh, from which an *abundance of serum issued*. By this remedy and proper regimen, together with fomentations, &c. the malady seemed to yield, and in six weeks the limb was reduced to its normal dimensions. She was discharged apparently cured. But in the course of the next year, the patient returned, with the limb still more swelled than before; and now the swelling had attacked both the lower extremities. The least movement excited insupportable sufferings—the tumefaction was at its utmost degree—*and the swelling pitted on pressure of the finger*. The health of the patient was greatly deranged—digestion difficult—stomach unable to bear, without pain, the lightest nourishment—bowels constipated—breathing short, difficult, and laborious—sanguification imperfect, and face of a blueish tint, as in hydrothorax—pulse small, quick, and irregular—urine obliged to be drawn off daily. At this time, there was felt in the hypogastric region, a hard globular mass, which was supposed to be a scirrhous ovary, or enlarged uterus.

The disease made rapid progress—emaciation advanced—eschars formed on the back, and the patient died.

Dissection. There was no disease in the chest. The abdominal viscera presented nothing extraordinary. On the front of the lumbar vertebræ was a large tumour of a fatty lardaceous nature, in the midst of which was found the ascending cava, greatly enlarged, its diameter being more than two inches and a half. On prosecuting the dissection, the primitive iliac and hypogastric veins, their principal divisions, the cava ascendens, as far as the diaphragm, were found extremely dilated, and filled with a dense, whitish, fibrinous-looking substance, in the centre of which there was a small canal, one line in diameter, through which the venous blood returned from the lower parts of the body. The parietes of these vessels were somewhat thicker than natural, and they were surrounded by degenerated cellular substance. The aorta was not affected. The lower extremities were infiltrated, and their veins much dilated.—*Journal Gen. de Med. January*, 1827.

Here is an other case of *phlegmasia dolens*!—an other proof that the cause of the disease is inflammation and obstruction of the pelvic or iliac veins! It is only necessary to clearly and fairly state these cases, to convince every observant and experienced practitioner that they are not the disease known by the term (however improper) *phlegmasia dolens*.

But the discussion of the new doctrine is very advantageous, and all these cases are interesting specimens of pathology, which are highly deserving of record.

Were we pressed for our own opinion as to the nature of phlegmasia dolens, we would say that it approaches nearer to what is termed diffuse cellular inflammation than to any other malady with which we are acquainted—but that it is not identical with that. In the diffuse cellular inflammation there is a "boggy" feel, to use the expression of Dr. Duncan and others; while in phlegmasia dolens, it is a tense elastic feel. This last disease, too, is not near so dangerous as the former. It is, therefore, a peculiar, or specific malady, sui generis, the proximate cause of which is not yet ascertained. But, from all that we have yet seen or heard, we are satisfied that this proximate cause is not PHLEBITIS.

16. HERNIA OF THE STOMACH THROUGH THE DIAPHRAGM.

At a late meeting of the Westminster Medical Society, a remarkable case of wound of the diaphragm was detailed by Mr. Hunt. The particulars are as follow:—The patient was stabbed in the left side with a knife, and for a month afterwards his life was in jeopardy. He then recovered from the effects of the wound, but from this time began to suffer from dyspepsia. When Mr. Hunt first saw the patient, nearly 16 months after the injury, he had cough, but unaccompanied by pain, or inability to expand the chest, attended by a peculiar kind of vomiting, apparently more dependent on the action of the stomach itself, than on that of the abdominal muscles and diaphragm. There was no febrile action, the pulse being below 70. Twelve ounces of blood were taken from the arm. Next day the symptoms being much exasperated, a larger quantity of blood was abstracted, and with relief to the patient. To check the slow inflammation which appeared to be going on in the stomach, blisters, &c. were applied to the epigastrium. For eight days the case seemed doing well, but at that time a low remittent fever was set up, which, however, at the end of a week or so, had nearly subsided under proper treatment. In the course of a day or two he became anxious, and was attacked with retching and vomiting of matters resembling coffee grounds. From this period no food could be retained upon the stomach, nor could any passage be procured through the bowels, and on the 5th day he died exhausted.

Dissection. On raising the sternum, a large mass was seen, which at first was thought to be an enlarged heart and pericardium, but which turned out to be the stomach greatly distended, and situated entirely in the left cavity of the thorax. On exposing the cavity of the abdomen, there was found a large opening in the diaphragm to the left, and rather below that for the passage of the œsophagus; it had a smooth and rounded margin, and through it the stomach and part of the duodenum had passed into the chest. It was with great difficulty, owing to the distension of the viscus with fluid, that it could be drawn back through this opening into the abdomen. The lung was apparently uninjured, and the intestinal canal sound, but near the pylorus there were marks of chronic inflammation, with ulceration of the mucous membrane.

Remarks. This is certainly a curious case. The manner in which the stomach got into the thorax, seems, in spite of a good deal of hot discussion which took place on it, simple enough. The knife pierced the diaphragm most probably in expiration. Through this wound a portion of the stomach was forced, partly, no doubt, by the suction power of the chest, as Dr. Barry well observed, but principally by the pressure of the abdominal muscles, and descent of the diaphragm itself. The opening continued to enlarge, and more of the stomach protruded through it, giving rise to irritation, and chronic inflammation of its coats, as shown by the dyspepsia and vomiting. At last the whole of the organ, dragging with it part of the duodenum, became located in the thorax, and it was at this time, in all probability, that the violent retching and vomiting occurred, and that the passage of food through the alimentary canal ceased. The preparation is sent to the museum of the College of Physicians.

The above are the remarks of our correspondent; but we have some doubt as to the supposed wound of the diaphragm in this case. It is not impossible that there might have been a congenital opening in the dia-

phragm, although the hernia might not have occurred till after the accident above detailed. The fallacy of the "post hoc, ergo propter hoc," proposition is well known. The Editor of this Journal examined the infant of a medical gentleman, (Dr. Golding,) in which there was a large congenital opening in the diaphragm, through which the stomach accidentally passed, and caused the death of the child. Another instance, still more remarkable, has lately been communicated by M. Sigaud to the Royal Society of Medicine of Marseilles, of which we shall here state the particulars.

A young man, 21 years of age, died suddenly, after a fit of indigestion, and the body was examined for the purpose of ascertaining the cause of this sudden and mysterious death. The dissection was performed by M. Sigaud, in the presence of Messrs. Giaud and Magail, when the following notes where recorded. In the left side of the diaphragm there existed a circular aperture, with rounded edges, and at least three inches in diameter, through which aperture a large mass of intestines had penetrated into the left cavity of the thorax, and had there become strangulated, causing the death of the patient. The preparation is preserved in the museum of the Society.—*See Archives Generales, Janvier* 1827, *p.* 130.

Now, had this young man received a penetrating wound in the direction of the diaphragm previously to this sudden death, it might, and probably would, have been said, that the aperture was thus produced, and that death had taken place in consequence of the opening left in the muscular partition between the two cavities.

16. REMITTENT BRONCHO-ENCEPHALITIS.

Under this head M. Broussais has related a curious case in his Journal *(Annales de la Med. Physiolog.)* for October last. The patient, a young man, was attacked with symptoms indicative of inflammatory action in the bronchial membrane, and also in the brain, with violent exacerbations, during which the cough was incessant, and the cephalalgia greatly aggravated by the successions of the cough. After three bleedings from the arm, and several applications of leeches to the temples and neck, the disease took on a decidedly periodical character, and then the sulphate of quinine was administered, with an allowance of light nourishment, especially as no symptoms of gastric irritation were present. The appetite was good, and the tongue clean. The medicine but slightly mitigated the paroxysms of coughing, and presently the skin became permanently hot and dry, the bowels irritable, and the embarrassment of the chest increased, the expectoration being viscid, and brought up with difficulty. The sulphate of quinine was discontinued, and leeches were applied to the lower part of the trachea. The strict antiphlogistic regimen was again adopted. This plan was crowned with success. "What," says M. Broussais, "would have been the result, if we had persevered with the febrifuge, because the disease assumed a periodical character? The patient having lost much blood, the inflammation might not, perhaps, have assumed an acute character, but certainly a chronic gastro-enteritis would have been established, and possibly the bronchial inflammation would have been converted into suppurative pneumonia."

the anxiety of countenance usually attendant on that inflammation.

Although the intestine was found in a gangrenous state, no hiccough was present, although we are told this is a prominent symptom.

We found vomiting, it is true, but this is not an unusual symptom in common inflammation of the testicle, which, it has before been observed, the present case, in some important points, strongly resembled.

I have before given Mr. Tyrrell's reason for making an opening into the intestine, by which he conceives (although there is some difference of opinion on this point,) we assist nature materially—we do that which would eventually be effected, and thus save time.

The beef tea was injected up the rectum, from the consideration that strangulation might be high up in the ileum, and consequently not a sufficiently large surface left above for the absorption of the nutriment that was occasionally retained on the stomach. More reliance is placed on this practice in France and Germany, than in this country. It will be seen, however, from the case, that, notwithstanding every exertion, the constitution never, after the sinking first commenced, showed any attempt to rally; and that, although the vomiting was latterly not so frequent, it appeared to arise simply from a want of power.

There is, however, one point of considerable interest, and on which there exists much difference of opinion, viz. the propriety of giving the sulph. magnes. with aquæ menth. p. in such cases as the one under consideration, to allay the irritability of the stomach, by procuring, if possible, evacuation from the bowels. It will be seen, from the detail of this case, and also from the next, that such is the practice of Mr. Tyrrell—such also is the plan of treatment adopted by some few other surgeons. But this mode of practice is by no means generally adopted, even by the surgeons of the Borough hospitals, some of whom follow the precepts and practice of the Clines, viz. leaving the patient without medicine for 10 or 12 hours, when the irritation of the stomach we are told ceases, and the cases frequently terminate favourably.

Experience only can determine this point; and while advocates are to be found for both modes of practice, it is but just to conclude, that both are, in their hands, frequently successful; but *which* demands the preference, must be decided by faithfully recording the cases, so as to afford us, eventually, just data, on which can be founded a correct opinion.

Case of Strangulated Femoral Hernia, with the Operation and Post Mortem Examination. Treated by F. TYRRELL, Esq. *St. Thomas's Hospital.*

Elizabeth Goodacre, æt. 64, was admitted into Ann's Ward, February 6th, about 1 o'clock, A. M.

A small tumour, to which an impulse was given on coughing, was perceptible in the right groin, immediately below Poupart's ligament. She had been the subject of hernia about 13 months, for which she had not worn a truss—a sort of bandage had, however, been applied to it.

Had not been able to return the tumour since the 1st instant; nausea and pain came on, and has continued since the morning of the 4th. She had now great anxiety of countenance, with pain and tension of the abdomen—nausea—but not actual vomiting—pulse 100, small and wiry.

The dresser tried the taxis ineffectually, and then applied cold until Mr. Tyrrell's arrival, when Mr. T. again employed for some time, but without success, the taxis. There was now (9 A. M.) occasional vomiting, with continual nausea; but as the symptoms were not urgent, it was determined to try an enema, and wait two or three hours before proposing the operation; accordingly, one composed of decoct. hord. c. ol. ricin. was injected, but was not retained an instant—it brought away no feculent matter, therefore, at 12 o'clock (merid.) Mr. Tyrrell performed the necessary operation to relieve the strangulated intestine.

Operation. Having divided the integuments over the tumour in the form of an inverted ⊥ and dissected back the flaps, several enlarged inguinal glands were found over it, firmly adherent to the fascia propria. (The hernial tumour extended more externally and not so much upwards.) Having carefully dissected to the fascia propria, this was found so firmly adherent to the hernial sac, that both were opened by the same incision.

wards before the superior of the first lumbar; consequently, the arch of the 12th dorsal was brought forwards, and pressing the medulla spinalis, having the superior articular process of the first lumbar vertebra in contact with the inferior part of it.

Mr. T. then proceeded with a chain-saw to take off the spinous process of the 12th dorsal, that he might the more clearly obtain a view of the arch, which it was next his object to remove. In order to accomplish this, Mr. Tyrrell, in his former operation, at first tried a small trephine, as recommended, and, indeed, used by Mr. Cline; but, finding this not to succeed, he was, in that case, under the necessity of finishing the operation with a Hay's saw, which he found much better adapted for the operation. This instrument was therefore, again used, and the arch was sawn through as near as possible to the transverse processes. To thus say "sawn through," would, perhaps, lead to the idea, without further explanation, that it was *at once* divided with impunity; but such was not the case; for so closely was the arch in contact with the dura mater of the spinal chord, as to render it necessary to be extremely cautious; and when a part was sawn through, it was removed by a strong pair of curved forceps: this was repeated several times before the spinal chord was exposed, which was ultimately done without injuring the membrane, which was found entire, without any appearance of effusion; and, as far as could be ascertained by its external appearance, the chord was uninjured. It having been ascertained, by the introduction of a probe, that no pressure remained, the wound was carefully cleaned, and the edges brought together, or nearly so, by a plaster, which Mr Tyrrell uses, composed of emp. thur. c. sapone, covered with simple dressing. The operation lasted less than an hour. Very little blood was lost, and the patient bore it with the greatest fortitude.

He was conveyed to bed, and placed upon his side, rather inclining, however, on his face.

Vesp. Pulse 90 and full—*sensation lower than before the operation.* An elastic gum catheter was introduced, and ordered to be worn in the bladder by means of which the attendants could, as often as needful, draw off the urine.

7th. Sensation is now about nine inches lower than before the operation—bowels not yet open—pulse 90 and full—has not slept—has some thirst—oozing of a bloody serum from the wound—urine drawn off several times, is plentifully secreted, and natural. The lower extremities are of same temperature as the rest of the body. Ordered enema c. dect. hord, c. sod. mur. R. Ol. ricin. ℥ss. statim et post horas 4, si opus sit. Finally, levigated calamine powder, was ordered to be dusted on the scrotum and in the perineum, to prevent excoriation.

8th. Has slept several hours in the night—the bowels are not open—pulse 94, more full and sharp—appears very cheerful and confident—wound is suppurating—*the sensation is not so low in the extremities as yesterday.*

Ordered. Enema colocynth. Statim. et post hor. vj. si opus sit.

Vesp. Both the clysters had been given, and the bowels have been relieved. In order to keep up the action, the following draught was ordered to be given occasionally. R. Mag. sulph. ℥ij. aq. menth. p. ℥iss. Urine plentiful and natural—extremities continue warm—a little slough on the surface of the wound—complains of rather more pain in and surrounding it—has also a slight pain in the head—pulse as in the morning.

9th. The bowels continue open—has taken the draught three times—he continues in good spirits—has some appetite—has been hitherto allowed arrow-root, sago, and other light food—prickling sensation in the legs—the urine is very plentiful, and now, for the first time, smelt slightly ammoniacal. Pulse 95 and full.

Vesp. The prickling sensation continues in the extremities, and the urine evolves rather more ammoniacal odour than in the morning—pulse 100, but not hard—pain in the head—sensation, on pinching the extremities, not lower than yesterday. The bladder was injected with lukewarm water, which was allowed to pass away immediately; about ½ pint more being then injected, and suffered to remain in till it became again necessary, from the accumulation of the urine, to allow it to pass off. This was ordered to be repeated several times a day. The wound appeared, on dressing it this evening, more healthy than yesterday.

10*th*. His bowels continue open—has some pain in his head—he continues cheerful—his tongue this morning, for the first time, furred—his pulse is not so full as yesterday, and 80—his skin is rather dry, and he feels, he says, slightly feverish—there is a free discharge from the wound. Mr. T. considered it advisable to increase the nutrition of his diet, which had hitherto consited of, as I have before observed, light pudding, sago, arrow-root, &c. He, therefore, ordered him to have daily a beef-steak or mutton chop; this the patient appeared gratified to hear. He took the former to day with a relish: he had also ½ pint of porter; but this, it was found, stimulated him too much, and he afterwards had the table beer of the hospital. He was ordered a fever draught to take occasionally—his urine had been drawn off twice in the night (pint and ½ each time)—it was also drawn off this morning and the bladder injected with warm water as before. The urine was more ammoniacal, and was mixed with a small quantity of thick mucus—there was also a very small portion of blood—continues to have the "darting and prickling" feel (as he describes it) in his legs and thighs—sensation is not quite so low down as last evening.

Vesp. His bowels have not been open since the morning—complains of considerable pain in the wound—sensation is not lower than the crista of the ilium—his pulse more full than in the morning—he also complains of soreness in the chest, and some difficulty of breathing, from his position. Mr. Tyrrell in consequence changed it, placing him on his back with a firm pillow on each side of the wound in the direction of the spine, so as to prevent pressure. He expressed himself very warmly as to the immediate relief this afforded him in his breathing, &c. but as he still complained of soreness he was examined, and a slight redness was perceived in the part. His aperient draught was repeated. The surface of the wound was covered with a slough.

11*th*. Has slept well—feels more easy in his present position—pulse 80 and full—has not so much pain in the head---has still pain in the back, though not so violent as yesterday—tongue white—bowels freely open—has more of the prickling in his legs and thighs—urine plentiful—still ammonaical—bladder injected with water—more mucus mixed with it, but not any blood.

Merid. Enjoyed his mutton chop—continues to take plentifully of arrow root, &c.

Vesp. Pulse 90, rather harder than in the morning—bowels open—rather more restless—dull pain in the bowels, with some soreness of the integuments—his breathing appears a little more hurried than natural—wound still looks rather foul—sensation is not lower than yesterday—there is more mucus mixed with a little blood in the urine this evening—it also emits a stronger ammoniacal odour—ordered to continue the fever mixture and to have tinct. opii gtt. xx. hora somni. Bladder injected as usual.

12*th*. Slept for a few hours last night, but became more restless towards morning—complains of more pain in the bowels which are open—his pulse is as last evening, and his countenance had not the placid appearance it had hitherto borne—there was an expression of pain in it—there was some pain (he did not however complain much of it) in his chest, on the right side, where he had complained of pressure in his first position—sensation is not so low by six inches as yesterday—there is no darting in the legs and thighs nor any pain in the head. The urine is strongly ammoniacal, and has more thick mucus (with a little blood) than yesterday—there is not much pain in the wound—the slough is separated, and it looks more healthy.

Vesp. Urine is plentiful—on the bladder being injected with warm water, much mucus came away—it also smelt very ammoniacal.----bowels open---fæces dark coloured----his countenance expresses more anxiety, and he is not so confident as to his recovery, as he has hitherto been ----has still slight pain in the chest----pulse 90, sharper than in the morning----wound dressed looks as well as in the morning---sensation is not lower than the umbilicus.

13*th*. There is this morning an evident alteration in his appearance----his countenance expresses considerable anxiety—has not slept----pulse 100 and hard ----has considerable pain in right side of the chest, with cough, which increases the pain---bowels open----urine plentiful---having, as before, ammonia---thick mucus and some blood---the wound looks more unhealthy than last evening, having a

slough on the surface---sensation not lower than last evening.

Ordered ----V. S. ad vj vel viij. ozs. and if this does not afford relief, 12 leeches to be applied to the seat of pain. The meat and beer are to be omitted, but to be still allowed sago, arrow-root or broth.

R. Calomel, gr. j. opii, gr. ss. nocte et mane.

R. Sodæ subcarbonat, ʒiij. mucil. g. acaciæ, ʒss.

R. Tinct. hyosciam. ʒvj. syr. papav. alb. ʒj. aq. menth. ʒvj. ℿ. The patient was directed to take a dessart spoonful of this when the cough was troublesome.

Merid. ʒix. of blood were taken, which presents a buffy appearance—immediately after the bleeding, the pulse became more expanded and soft, but the pain and difficulty of breathing not being relieved, the 12 leeches were applied, which are now bleeding very freely, but his breathing is still laborious—his pulse is 100, though not so hard as in the morning—bowels open—urine drawn and bladder injected. Continues very restless, and his temper which has, till now, been comparatively mild, is very irritable.

10 *o'Clock P. M.* The leeches have continued to bleed very freely---but all his symptoms have now assumed a most alarming aspect. His pulse is 120, full and bounding---has excruciating pain in the side---much greater anxiety of the countenance.----great restlessness---frequent cough, with greater difficulty of breathing---pain in the wound, which looked unhealthy----no sensation below the displaced vertebræ. A much greater evolution of ammoniacal odour from the urine, which contained at least 3 ozs. of mucus mixed with blood.

V. Sectio ad ʒxvj. this had a considerable effect for a time on his pulse, but did not relieve the difficulty of breathing, and but very slightly the pain.

2 *o'Clock A. M.* The pulse has risen to 130, but more feeble---pain and difficulty of breathing much more considerable.

V. S. ad ʒvj. produced but temporary relief, and at 4 o'clock A. M. he died.

He was perfectly sensible till within a short time of his death, when he became delirious, and expressed a wish to get out of bed, but did not attempt it. I mention this as a curious coincidence with Mr. Tyrrell's former case, and also in confirmation of Mr. Bell's statement.

It is to be regretted that no post mortem examination could be obtained, as the poor man's Irish friends interfered, and nothing could induce them to consent to it----application was made to the Coroner for an order, but without effect.

Remarks. Although this case has terminated unfavourably, still, on looking to the immediate cause of death, which, as far as the symptoms inform us, without having the confirmation of a post mortem inspection, was evidently seated in the pleura and lungs; where, it appeared, on inquiry, he had before had an inflammatory attack; we must acknowledge, that as this attack was not a *necessary* consequence either of the accident or treatment, (which is proved by Mr. Tyrrell's former case) it affords, in this point of view, no argument against the mode adopted for the relief of the patient. But it becomes a question whether it is not almost certain, from the symptoms, that death must have eventually, and at no distant period, terminated the case, from the disorganization evidently going on in the bladder, if the fatal attack of pneumonia had not supervened ?---Mr. Tyrrell has, in his remarks on his former case in Sir A. Cooper's Lectures, Vol 2nd. stated "My patient died of inflammation of the bladder, *occasioned by the irritation of the urine*, which, I believe, *might have been prevented;* and I should have taken steps for that purpose, had I known some circumstances connected with Mr. Cline's experiments relative to injuries of the spine." "He invariably found, that, after complete paraplegia was produced by the injury which he inflicted on the spinal marrow of dogs—the bladder became affected from the *action of the urine on its mucous coat.*" "*This organ,*" he continues, "*having lost its nervous power.* it appears that the *urine becomes decomposed in it, as it does after it is voided under ordinary circumstances*, and thus acts as an *irritant* on the *mucous surface.*" "This" says Mr. T. "might probably be *obviated* by frequently *emptying the bladder* with a syringe, and *injecting a fluid* to protect its mucous coat."

It is, however, necessary that these changes should be further investigated the present case entirely disproving the above conclusions—1st, "That the urine is decomposed *in the bladder*"—2dly, That

it is this, which, acting as an irritant on the mucous coat, produces the mischief; and, lastly, That the diorganization may be "obviated" by the means recommended.

For, in the first place, the urine was drawn off so frequently in the present case, as not to allow sufficient time for the decomposition; but, to place the matter beyond a doubt—the following method was adopted:—After the bladder had been emptied of the urine, by means of Read's syringe, (which is admirably adapted to the purpose) warm water was several times injected and withdrawn, till no trace of ammonia could be perceived. A small quantity of clear water was then injected, and allowed to remain about 15 or 20 minutes, when it was allowed to pass off, and the *odour of ammonia could be distinctly perceived.* Now, supposing urine to have been instantly mixed with the water after its injection into the bladder, and that under the "loss of nervous power," it will decompose as quick in as out of it; still, every one is aware, that more time than was allowed, is required, under "ordinary circumstances," out of the bladder, for its decomposition.

It must, therefore, be concluded, that in whatever way the ammonia is formed, it takes place before the urine arrives in the bladder.

2ndly. The same argument is equally applicable to this position, the urine not having probably in this case been allowed to remain sufficiently long to produce the disorganization—but

3dly. In whatever way the disorganization is effected, it is very evident that the means recommended and employed in this case, are perfectly inadequate to the prevention of it; and, as this appears a sine qua non in the successful treatment of these accidents, it still remains an interesting subject for investigation; for it is evident, from the symptoms, that the present case must, ere long, have terminated fatally from the disorganization in the bladder (which it will be seen gradually increased from the 3d or 4th day up to his death) if the fatal attack of pneumonia had not supervened.

An occasional instance may, however, occur where this is not the case. This is exemplified by an interesting case which has within the last few weeks been spoken of at the Borough schools. In this instance, the patient survived a fracture with displacement of the superior lumbar vertebræ, causing paralysis of the lower extremity, 14 years; it was found, on inspecting the body after death, that the spinal chord was completely divided, with the exception of the dura matter. The case is, however, I am told, shortly to be published.

2. *Case of Injury to the Spine.*

W. Stephens, æt 24, was admitted into St. Thomas's Hospital, under Mr. Tyrrel, on the same day as the case before related, February 5th, with total loss of motion and sensation in the lower extremities, and partial loss of motion in the upper, occasioned by being violently thrown, in a scuffle, against the edge of a board, on his back. There was considerable pain between the shoulders, extending down his arms, with some pain in the head. After minute examination, no irregularity could be perceived in the spinous process. Mr. Tyrrell did not, therefore, consider himself justified in proposing an operation. His pulse was 80, and full—ordered to be cupped to 16 ounces, at the back of the neck, after which, a dose of castor oil. The catheter to be introduced.

Vesp. The pain was somewhat relieved by the bleeding.

Feb. 6th. Restless night—countenance rather anxious—pulse 85, full—some pain in the head—tongue rather furred, with some thirst—fæces pass involuntarily.

Vesp. Urine plentifully secreted, did not smell ammoniacal—pulse 95, rather sharp—more pain and restlessness—cupping repeated, which again produced temporary relief; the pulse also became softer.

7th Mane. Slept for a short time after the bleeding last evening, but has since been restless—the lower part of the abdomen tense, somewhat tender on pressure, and slightly distended—the mine was plentifully secreted—did not smell ammoniacal—there was more anxiety of countenance, and greater difficulty of breathing than yesterday:—the latter symptom was, indeed, now the most urgent; it was, therefore, considered probable, that the injury extended to the cervical vertebræ—his pulse was more feeble.

Sometimes Mr. T. has seen considerable pain in the wound precede or accompany the tetanic symptoms; but frequently (as in the present case,) no pain or uneasiness existed.

In one case, which occurred last year, pain was complained of in the cervical vertebræ, but frequently, and such was the case in the present instance, none was present; nor is there ever any cerebral disturbance.

Mr. T. now reviewed the *post mortem* appearances in these cases, in order to ascertain if these will furnish any clue to the successful treatment.

It has lately been attributed by some to inflammation of the spinal cord; and in five or six cases which Mr. T. has examined, he has found, as in this case, effusion into the theca, and the vessels of the pia mater turgid with blood. But the spinal cord is so seldom examined, that it is impossible (with our present imperfect knowledge of its healthy appearance, coupled with the fact that the fluids will, of course, gravitate to the most dependent part) to say how far the appearance found depended on inflammation. With respect to the bony deposits which were found in this case (and which is most beautifully seen in a preparation in St. Thomas's museum, taken from a patient who died from tetanus,) Mr. T. has found the same in a case of hydrophobia and also in a case of chorea. It does not appear to him to be the product of acute inflammation, nor to have been formed in the short time the patient was affected; for, previous to a deposition of bone, it is well known that a cartilaginous deposit must take place. Mr. T. was inclined to believe, that little light has hitherto been thrown on the pathology of this disease, by post mortem examinations.

How, then, are we to treat it? Are we to bleed, as some have recommended, or should we stimulate, and give anti-spasmodics, as others have strongly advised? Mr. T. thinks that each plan is adapted to particular cases, but that it is impossible to legislate for all.

The state of the wound will naturally first claim the surgeon's attention, and if there be pain, examine it attentively, as probably some spiculæ of bone or collection of pus may be keeping up an irritation: if it is found impossible, as in a severe comminuted compound fracture, to remove the spiculæ, amputate the limb. But it will, as the following case illustrates, sometimes be in our power to remove the cause of irritation, without resorting to this measure.

A patient was brought to St. Thomas's Hospital, and admitted under Mr. Tyrrell, with compound dislocation of the great toe. The end of the bone protruded. This was reduced; but trismus came on, and he could not swallow without difficulty. Dr. Elliotson saw him, and ordered, fer. carb. ℥ss. 2nda. vel 3tia. quaq. hora. He continued this for eight days—the disease gradually increased—and at this time the muscles of the abdomen had become rigid. Fluctuation was now felt on the dorsum of the foot; a free incision was made, and about ℥iij of a fetid pus escaped. The patient quickly became better, but the iron was continued in smaller doses for some time.

Some may be inclined to attribute the cure to the iron; but Mr. T. thinks it probably prevented the disease proceeding more rapidly; yet, until the matter was evacuated, the disease gradually increased.

Sometimes the discharge from the wound is altered, or stopped altogether; in this case, Mr. T. recommends counter-irritation in a neighbouring part, which will, in a few hours, restore it. This is founded on experience. He finds *blistering* the best mode of counter-irritation.

The bowels will frequently be constipated, as was the case in this patient; these must first be relieved—the other secretions and excretions must also be attended to.

Mr. T. considers it a *most important* point in the treatment of these cases, and of injuries generally, to ascertain the previous habits of the patient. Although this man appeared stout and muscular still, had he been aware of his previous habits, he would have allowed him a much greater quantity of stimuli. To illustrate this proposition, he related the two following cases.

A man was brought to the hospital, somewhat intoxicated, with considerable injury to the knee joint. Mr. T. recommended amputation, but the patient would not then consent. On the following day, however, the operation was performed, and the stump was dressed in the usual

16. HERNIA OF THE STOMACH THROUGH THE DIAPHRAGM.

At a late meeting of the Westminster Medical Society, a remarkable case of wound of the diaphragm was detailed by Mr. Hunt. The particulars are as follow:—The patient was stabbed in the left side with a knife, and for a month afterwards his life was in jeopardy. He then recovered from the effects of the wound, but from this time began to suffer from dyspepsia. When Mr. Hunt first saw the patient, nearly 16 months after the injury, he had cough, but unaccompanied by pain, or inability to expand the chest, attended by a peculiar kind of vomiting, apparently more dependent on the action of the stomach itself, than on that of the abdominal muscles and diaphragm. There was no febrile action, the pulse being below 70. Twelve ounces of blood were taken from the arm. Next day the symptoms being much exasperated, a larger quantity of blood was abstracted, and with relief to the patient. To check the slow inflammation which appeared to be going on in the stomach, blisters, &c. were applied to the epigastrium. For eight days the case seemed doing well, but at that time a low remittent fever was set up, which, however, at the end of a week or so, had nearly subsided under proper treatment. In the course of a day or two he became anxious, and was attacked with retching and vomiting of matters resembling coffee grounds. From this period no food could be retained upon the stomach, nor could any passage be procured through the bowels, and on the 5th day he died exhausted.

Dissection. On raising the sternum, a large mass was seen, which at first was thought to be an enlarged heart and pericardium, but which turned out to be the stomach greatly distended, and situated entirely in the left cavity of the thorax. On exposing the cavity of the abdomen, there was found a large opening in the diaphragm to the left, and rather below that for the passage of the œsophagus; it had a smooth and rounded margin, and through it the stomach and part of the duodenum had passed into the chest. It was with great difficulty, owing to the distension of the viscus with fluid, that it could be drawn back through this opening into the abdomen. The lung was apparently uninjured, and the intestinal canal sound, but near the pylorus there were marks of chronic inflammation, with ulceration of the mucous membrane.

Remarks. This is certainly a curious case. The manner in which the stomach got into the thorax, seems, in spite of a good deal of hot discussion which took place on it, simple enough. The knife pierced the diaphragm most probably in expiration. Through this wound a portion of the stomach was forced, partly, no doubt, by the suction power of the chest, as Dr. Barry well observed, but principally by the pressure of the abdominal muscles, and descent of the diaphragm itself. The opening continued to enlarge, and more of the stomach protruded through it, giving rise to irritation, and chronic inflammation of its coats, as shown by the dyspepsia and vomiting. At last the whole of the organ, dragging with it part of the duodenum, became located in the thorax, and it was at this time, in all probability, that the violent retching and vomiting occurred, and that the passage of food through the alimentary canal ceased. The preparation is sent to the museum of the College of Physicians.

The above are the remarks of our correspondent; but we have some doubt as to the supposed wound of the diaphragm in this case. It is not impossible that there might have been a congenital opening in the dia-

phragm, although the hernia might not have occurred till after the accident above detailed. The fallacy of the "post hoc, ergo propter hoc," proposition is well known. The Editor of this Journal examined the infant of a medical gentleman, (Dr. Golding,) in which there was a large congenital opening in the diaphragm, through which the stomach accidentally passed, and caused the death of the child. Another instance, still more remarkable, has lately been communicated by M. Sigaud to the Royal Society of Medicine of Marseilles, of which we shall here state the particulars.

A young man, 21 years of age, died suddenly, after a fit of indigestion, and the body was examined for the purpose of ascertaining the cause of this sudden and mysterious death. The dissection was performed by M. Sigaud, in the presence of Messrs. Giaud and Magail, when the following notes where recorded. In the left side of the diaphragm there existed a circular aperture, with rounded edges, and at least three inches in diameter, through which aperture a large mass of intestines had penetrated into the left cavity of the thorax, and had there become strangulated, causing the death of the patient. The preparation is preserved in the museum of the Society.—*See Archives Generales, Janvier* 1827, *p.* 130.

Now, had this young man received a penetrating wound in the direction of the diaphragm previously to this sudden death, it might, and probably would, have been said, that the aperture was thus produced, and that death had taken place in consequence of the opening left in the muscular partition between the two cavities.

16. REMITTENT BRONCHO-ENCEPHALITIS.

Under this head M. Broussais has related a curious case in his Journal *(Annales de la Med. Physiolog.)* for October last. The patient, a young man, was attacked with symptoms indicative of inflammatory action in the bronchial membrane, and also in the brain, with violent exacerbations, during which the cough was incessant, and the cephalalgia greatly aggravated by the successions of the cough. After three bleedings from the arm, and several applications of leeches to the temples and neck, the disease took on a decidedly periodical character, and then the sulphate of quinine was administered, with an allowance of light nourishment, especially as no symptoms of gastric irritation were present. The appetite was good, and the tongue clean. The medicine but slightly mitigated the paroxysms of coughing, and presently the skin became permanently hot and dry, the bowels irritable, and the embarrassment of the chest increased, the expectoration being viscid, and brought up with difficulty. The sulphate of quinine was discontinued, and leeches were applied to the lower part of the trachea. The strict antiphlogistic regimen was again adopted. This plan was crowned with success. "What," says M. Broussais, "would have been the result, if we had persevered with the febrifuge, because the disease assumed a periodical character? The patient having lost much blood, the inflammation might not, perhaps, have assumed an acute character, but certainly a chronic gastro-enteritis would have been established, and possibly the bronchial inflammation would have been converted into suppurative pneumonia."

which, in the hands of Mr. Green, has, in *upwards of 70 cases, proved invariably successful.*

The patient gradually recovered. The urine now (March 8th) passes entirely by the urethra; and he is allowed to sit up a short time.

A circumstance occurred, about a week after the operation, which affords a useful lesson. The patient's bowels had been allowed to become rather costive, and he passed some hardened fæces, with some difficulty At this time, the urine nearly all passed by the urethra; but this exertion separated the slight adhesions, and it again passed freely by the wound, which, of course, somewhat retarded his recovery.

OPERATIONS, BY F. TYRRELL, ESQ.

Popliteal Aneurism.

1827.

Feb. 1st. GEORGE GRAHAM, æt. 32, of spare habit and debilitated constitution, was admitted under Mr. Tyrrell, with very distinctly marked popliteal aneurism. On further examination, in order to ascertain if any other existed (which Mr. T. invariably does before proposing the operation, and the plan is worthy of imitation) he thought, as also did Mr. Green, that he could distinctly feel an aneurism at the bifurcation of the aorta. The operation was therefore not proposed, till, on examining very attentively a few days after, no traces of the supposed aneurism at the bifurcation could be felt. This examination was again repeated, a day or two afterwards, with the same result. Mr. T. now ascertained that he had an anterior curvature of the spine, and thought it probable, though by no means certain, that the aorta being thrown forward by the curvature, and the patient being, on the first examination, agitated, it was the vessel itself which was felt pulsating.*

Feb. 6th. The femoral artery was taken up in the usual place (where it is crossed by the sartorius muscle) and it completely commanded the pulsation in the tumour, which has gradually diminished, and is now *(March 10th)* not perceptible. There is still, however, a numbness in the extremity; but the temperature of the limb is natural.

The ligature has separated, and the wound in the thigh is nearly healed.

Amputation.

DENNIS BURNS, æt. 29, was admitted, under Mr. Tyrrell, into William's ward, July 29th, complaining of a long-continued pain at the upper and anterior part of the head of the tibia, where, on examination, an elastic tumour was perceived, on pressing which the pain was not increased.

Strict antiphlogistic measures were instantly adopted. By bleeding locally and generally, frequently repeated, followed by counter-irritation, the pain was nearly conquered; but the swelling still continued, and, at length, (in about five months) the integuments covering the part ulcerated, and a considerable quantity of bloody matter escaped. On examination, it was found that the ligamentum patellæ was ulcerating, and the tubercle of the tibia partially exposed. The ulceration extending, and the patient's strength suffering materially, (although every exertion was made to support it, by nourishing food and tonics,) it became necessary to remove the limb, which was done, by Mr. T. on the 9th of March.

There was nothing worth remarking in the operation, if we except, perhaps, the necessity of taking up the femoral vein.

March 15th. No pain in the stump—patient is going on well.

Examination of the Limb. The ligamentum patellæ was found completely ulcerated through, so that the rectus, crureus, and vasti muscles, having nothing to antagonize them, had drawn the patella above the articulating surfaces on the femur. The tubercle of the tibia was exfoliated to a considerable extent. Although so much mischief had been produced in the immediate vicinity, the joint was perfectly healthy.

THOMAS H. SMITH.

London, 15th March, 1827.

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* After repeated examinations, however, since the operation, the tumour has at length been again felt at the bifurcation, and on the application of the stethoscope, the peculiar "thrilling" or "whizzing" sound, denoting an aneurism, can now be distinctly heard. T. H. S.

N. B. This whizzing sound is now acknowledged to be no positive proof of aneurism.—*Ed.*

II.

To the Editor of the Medico-Chirurgical Review.

Sir,—Dr. David Barry has published, in your Number for January, (p. 292) an appeal to the "literary integrity of the country," and a demand of an "*amende honorable*," by which, it may be presumed, he understands an apology, from the editor, or the author of a criticism on his "Researches on the Influence of Atmospherical Pressure," published in the Edinburgh Journal of Medical Science for October last.

The following seem to constitute the whole grounds stated by him for this not uncommon claim on the part of authors who feel themselves ill at ease under the remarks of their reviewers. Dr. B. complains—

1. That the writer alluded to has not employed Dr. Barry's own words in delivering a brief view of his doctrine.

2. That the six propositions in which he comprehends that condensed view are not *pure : i. e.* are mixed up with foreign matter.

3. That the reviewer "charges his book with asserting, that atmospheric pressure is the sole cause of the blood of the veins moving towards the heart, and has also charged the illustrious philosophers, Cuvier, Dumeril, &c. with abetting this assertion."

4. That the reviewer has committed the latter misreport, by mistaking the application of the French word "*uniquement.*"

5. That the reviewer has misapplied a calculation which he amplifies from Haller, with respect to Dr. Barry's theory.

6. That the reviewer has given a physiological misrepresentation, and (if the expression be intelligible) has written disrespectfully of the great names of Cuvier, Dumeril, and Laennec.

These are grave charges, six of which, had we by any chance become guilty, we should not, for a moment, have hesitated to undergo the "amende honorable" called for by Dr. Barry, even in the strictness of the letter. They implicate our character as judges. as fair and honourable men ; and, necessarily, suggest what Dr. Barry has presumed, that we have neither sense to understand his book, nor honesty to render a fair account of it to that tribunal which we are not less anxious to please than he is himself. We shall endeavour to show him, in a few words, however, that the accusations are entirely void of foundation: and, in doing so, we hope he will excuse us if we pass over a number of lesser charges made by him, in the same *reclamation*, and which affect neither our industry nor our good faith, without reply or retaliation. Thus, it is of no consequence to the public whether the reviewer be "nameless" or renowned, provided he have spoken the truth. Neither does it matter much that he hath written, after the manner of other such critics, in the plural number: nor that he thought proper not to perplex a simple numerical calculation, "by applying to it the lights of modern science:" still less would your readers be edified by learning, that the Edinburgh reviewer most heretically believes in the infallibility of the multiplication table, applied as above, and that he aggravated this offence by writing Q. E. D. at the end of this arithmetical argument. We must explain, however, to the unmathematical part of your readers, that Q. E. D. are not the initials of *Quod Extingerit Desidem*, as some have supposed, but a common contraction the reviewer learned at school, for *quod erat demonstrandum*. In fine, your readers will care nothing for being told the reasons why the reviewer speaks of "sugescent power, suction, rotundity," &c. and occasionally in a very elliptical manner, as a man may sometimes be supposed to do, who is forced to condense the marrow of a book of 175 pages, and his own criticisms, into something less than three pages of a periodical.

We proceed, then, to the major charges—

Charge 1. The reviewer did not employ Dr. Barry's phraseology, for two reasons. He preferred his own ; and he could not have condensed that of Dr. B. into less than a sheet and a half.

Charge 2. The six propositions, with their authorities now added, are as follow.

1. The moving force of the arterial blood, whatever it is, becomes extinct in the extreme arteries.

Authorities.—"As the blood passes through the greater veins during inspiration only, while it is incessantly traversing the arteries, it follows that an accumulation must take place somewhere between these two orders of vessels.' 36.

10*th*. His bowels continue open—has some pain in his head—he continues cheerful—his tongue this morning, for the first time, furred—his pulse is not so full as yesterday, and 80—his skin is rather dry, and he feels, he says, slightly feverish—there is a free discharge from the wound. Mr. T. considered it advisable to increase the nutrition of his diet, which had hitherto consited of, as I have before observed, light pudding, sago, arrow-root, &c. He, therefore, ordered him to have daily a beef-steak or mutton chop; this the patient appeared gratified to hear. He took the former to day with a relish: he had also ½ pint of porter; but this, it was found, stimulated him too much, and he afterwards had the table beer of the hospital. He was ordered a fever draught to take occasionally—his urine had been drawn off twice in the night (pint and ½ each time)—it was also drawn off this morning and the bladder injected with warm water as before. The urine was more ammoniacal, and was mixed with a small quantity of thick mucus—there was also a very small portion of blood—continues to have the "darting and prickling" feel (as he describes it) in his legs and thighs—sensation is not quite so low down as last evening.

Vesp. His bowels have not been open since the morning—complains of considerable pain in the wound—sensation is not lower than the crista of the ilium—his pulse more full than in the morning—he also complains of soreness in the chest, and some difficulty of breathing, from his position. Mr. Tyrrell in consequence changed it, placing him on his back with a firm pillow on each side of the wound in the direction of the spine, so as to prevent pressure. He expressed himself very warmly as to the immediate relief this afforded him in his breathing, &c. but as he still complained of soreness he was examined, and a slight redness was perceived in the part. His aperient draught was repeated. The surface of the wound was covered with a slough.

11*th*. Has slept well—feels more easy in his present position—pulse 80 and full—has not so much pain in the head—has still pain in the back, though not so violent as yesterday—tongue white—bowels freely open—has more of the prickling in his legs and thighs—urine plentiful—still ammonaical—bladder injected with water—more mucus mixed with it, but not any blood.

Merid. Enjoyed his mutton chop—continues to take plentifully of arrow root, &c.

Vesp. Pulse 90, rather harder than in the morning—bowels open—rather more restless—dull pain in the bowels, with some soreness of the integuments—his breathing appears a little more hurried than natural—wound still looks rather foul—sensation is not lower than yesterday—there is more mucus mixed with a little blood in the urine this evening—it also emits a stronger ammoniacal odour—ordered to continue the fever mixture and to have tinct. opii gtt. xx. hora somni. Bladder injected as usual.

12*th*. Slept for a few hours last night, but became more restless towards morning—complains of more pain in the bowels which are open—his pulse is as last evening, and his countenance had not the placid appearance it had hitherto borne—there was an expression of pain in it—there was some pain (he did not however complain much of it) in his chest, on the right side, where he had complained of pressure in his first position—sensation is not so low by six inches as yesterday—there is no darting in the legs and thighs nor any pain in the head. The urine is strongly ammoniacal, and has more thick mucus (with a little blood) than yesterday—there is not much pain in the wound—the slough is separated, and it looks more healthy.

Vesp. Urine is plentiful—on the bladder being injected with warm water, much mucus came away—it also smelt very ammoniacal.----bowels open----fæces dark coloured----his countenance expresses more anxiety, and he is not so confident as to his recovery, as he has hitherto been ----has still slight pain in the chest----pulse 90, sharper than in the morning----wound dressed looks as well as in the morning----sensation is not lower than the umbilicus.

13*th*. There is this morning an evident alteration in his appearance----his countenance expresses considerable anxiety---has not slept---pulse 100 and hard ----has considerable pain in right side of the chest, with cough, which increases the pain---bowels open----urine plentiful---having, as before, ammonia----thick mucus and some blood----the wound looks more unhealthy than last evening, having a

ING THE ACT AND TIME OF INSPIRATION; and that this venous movement was *always* placed under the influence of the action of atmospheric pressure." p. 69. "Upon a comparison of the relative velocities of venous and arterial blood," the author founds the notion, that "the pressure of the atmosphere is the *principal power* which impels the venous blood to the heart during inspiration." p. 70.

We must declare, that the mere idea of the pressure of the atmosphere being the principal cause, was not first taken up by him." 71.

M. Barry attributes the dilatation of the heart itself, and of its auricles, to the tendency to a vacuum, which takes place in all the cavities of the chest during inspiration." p. 71.

The report from which these extracts are taken, is signed by Cuvier and Dumeril, and with the approbation of the Academy, countersigned by their secretary, Baron Cuvier. The Edinburgh critic was not, therefore, alone in this only rational interpretation of Dr. Barry's memoir.

Charge 4.—Is but a grammatical one—a conjecture that the reviewer of Dr. Barry mistranslated the French word "uniquement," in Dumeril's report. That word occurs only thrice in the report; and in the two which Dr. B. has thought proper to translate, he expresses its sense in English, by the word *solely*. In that sense, precisely, was the word understood by the reviewer; and he also thought he understood why Dr. Barry, in his translation, chose to *omit it* in the passage below. 'In fine, although the greatest number of physiologists attributed the progression of the venous blood towards the heart (solely,) to a vacuum formed in this organ," &c. p. 65.

The omission is such as a man would make, who was very anxious to secure the patent right of this sole propelling power to himself, and who trusted to the good sense of his readers for their avoiding the *bore* of comparing his translation with the original! At all events, his reviewer has no where made the least use of the word "uniquement," either for or against his theory, and therefore it can be made no fair ground of complaint by the author.

Charge 5. The reviewer has misunderstood and misapplied the calculation of Haller—Let us see. Dr. B. himself confesses, that, by approximation, it shows how little the pressure of the air can impede the current in the pulmonary arteries! It therefore must afford us approximate measures of the force of that pressure, and of the momentum of the blood rushing through the lungs, and, consequently, of their proportion to each other. The calculation, to be sure, only affords a *minimum* proportion, and is distinctly stated by the reviewer to express merely, that the relation of the diminished atmospheric pressure to the action of the right ventricle is not greater than 1 to 355. The ratio ought to be increased a little, by the difference between the velocity of the blood in the vena cava, and in the pulmonary artery, but the result would only produce a trifling difference, not worth the pains of multiplication. But had the reviewer been even as much in the wrong as he is in the right, Dr. Barry had no more reason to demand satisfaction for his belief in the doctrines of Haller, than for his being a Presbyterian.

Charge 6. Misrepresentation and disrespect of Cuvier, Dumeril, and Laennec. The only sentence in which they are alluded to, except barely for the purpose of being named, is this: "It would seem, even the illustrious Cuvier, Dumeril, and Laennec, still persist in attributing the *whole* of an effect to respiration, of which it can but at most, in the nature of things, produce the $\frac{1}{13}$ part."—Edin. Journ. Med. Science. No. V. p. 463. The passages formerly extracted from their report will enable the reader to perceive that there is virtually no overstatement here: and he will possess extraordinary tact, if he can pervert any portion of it into incivility or disrespect. To these eminent foreigners we owe merely the tribute due to genius and science, respect, and we pay it cheerfully, but we see not how it should ever prevent us from stating the simple fact.

We have now refuted the whole of Dr. Barry's charges with little trouble. We wish, indeed, he had rather entered on the argumentative part of the review he condemns, than amused himself and us with groundless imputations, and clamour for an "amende honorable," which he must now see is due by him to us for his unsound doctrines and unseasonable

interpellation. His vacuum drum had long sounded, because it was empty—but now that it is riddled and tattered, let him stand by it like a good soldier, and we shall give him fair battle on any point of our argument he may choose to impugn as the weakest. We never counted any thing on the Hallerian computation, farther than as a shrewd guess at the greatest effect of the atmospheric pressure—and we did not even number it among the other four heads of arguments which we consider as irrefragable proofs of the insignificance of the latter. Dr. Barry, equally, by his silence, seems to consider them as unanswerable. Should he change his mind, however, he will find us quite ready to discuss the question with him in a proper manner, for we love physiological investigation, when the object of the controversy is neither gain, nor the glory of victory, but a genuine search after truth. In short, we say that atmospheric pressure is almost nullity, and sheer nonsense.—Let the Doctor disprove our position. We are, &c.

The Reviewer of Dr. Barry, in the 5th Number of the Edinburgh Journal of Medical Science.

III.

Case of Dropsy of the Pericardium, in which the Operation of Tapping was performed. By Mr. JOWETT.*

Nottingham, March 7th, 1827.

My DEAR SIR,—You have probably learnt, from the newspaper paragraph, or the Lancet of last week, into which it is copied, that I have ventured to perform the operation of puncturing the pericardium, in a case of effusion arising from pericarditis. Under the impression that a sketch of the case would form an acceptable communication for your valuable Journal, I forward the following particulars. It may first be necessary for me to premise, that, in consequence of several examples of latent pericarditis, as well as several instances of adhesion of the pericardium to the heart, having fallen under my observation in the early part of my pathological researches, my attention had been particularly directed to the detection of that insidious and not unfrequent disease. When Collin's excellent little work, "Des diverses Methodes d'Exploration de la Poitrine," appeared, I hoped to have found a valuable stethoscopic indication in the "*bruit analogue, ou craquement du cuir neuf*," which he mentions as a probable sign of the first stages of pericarditis. The year 1825, however, passed without my being able to verify that writer's statements in a single instance; and as Laennec has not even alluded to the phenomenon in the late edition of his work, it may be presumed, at first sight, that the hints which Collin threw out have not been substantiated by subsequent observations.

In the course of last winter, two fatal examples of copious effusion into the pericardium, from inflammation, fell under my observation, and, from them, I acquired some valuable data, as to the extent to which the membrane may be distended, and the indications of auscultation and percussion; and I also satisfied myself, that, where there is copious effusion into the pericardium, the bag may be punctured anteriorly without danger to the heart, as that organ, under such circumstances, is pushed upwards and backwards, towards the root of the bronchia.

Last spring, I met with several cases of acute pericarditis, denoted by general symptoms, and in which I also observed, for the first time, a peculiar *rustling kind of noise*, seeming to accompany and to be caused by the auricle's action, though not exactly synchronous with it; which these and subsequent observations lead me to regard as a *pathognomonic sign* of a layer of coagulable lymph effused upon the pericardium and heart. This phenomenon is always the most distinct in the superior part of the præcordial region, the cartilages of the third and fourth ribs being the situation where it is generally the strongest: though it appears to occur during the action of the auricles, it does not accompany it exactly, but seems rather to arise from the general action of the organ: it is irregular; varies much in degree and character at different times; and sometimes disappears altogether for intervals of various duration. It approaches the nearest to the *rushing noise* of diseased valves, but an experienced ear readily distinguishes the latter by its regular uni-

* In a letter to the Editor.

form character, and by its duration according exactly with the systole of one or both of the heart's cavities, whilst the former is various and irregular—indeed, the term *rustling*, which I have employed, gives a better idea of the noise than any other word. The *noise of muscular action*, respecting which Laennec says so much in his second edition, is so obviously different, that no accurate ear can be at any loss, after having once heard both the phenomena.

Last June, a case of acute pericarditis came under my care, in which the accumulation of fluid interrupted the heart's action so materially, that I expected the issue to prove fatal, unless it were evacuated by the operation. I at that time inserted the following observations in my note book.

"*June 14th*, 8 *A. M.* I attribute the interruption of the heart's action to the fluid filling the pericardium; and from a careful examination by the stethoscope, percussion, &c. I think the pericardium might be cautiously punctured with a trocar between the 6th and 7th left cartilages, without wounding the heart, and the fluid be abstracted. At the same time, I consider that, in the present stage of our knowledge, the operation would only be justifiable under desperate circumstances, and, when it is clear that death must ensue without it, and I have mentioned it to the friends as a measure it might be right to try, as giving a chance of life, when no other chance remained. Should the case become desperate, I think I should do it, if he consented.

"In the performance of the operation, I think two things are essentially necessary to be guarded against. (1st.) Not to wound the heart, and (2nd) not to admit air into the pericardium.

"1. An instrument introduced between the cartilages into the pericardium, in the natural state, where there is no fluid, would be almost certain to wound the heart, as it is in immediate contact with it. When, however, there is considerable effusion into the pericardium, I have observed that the heart is pushed backwards, and also upwards, towards the root of the bronchia, whilst the inferior anterior part of the bag is occupied by the fluid;—consequently, a trocar might be introduced with safety.

"I consider it essentially necessary to prevent the admission of air into the pericardium for these reasons. 1st. To admit air instead of fluid, would only be to substitute one cause of obstruction to the heart's action for another. 2nd. That from facts I have collected, in cases where paracentesis thoracis was resorted to, I am satisfied that the admission of air occasions the decomposition of the fluid left in the cavity, (and it is impossible to remove it entirely,) which then becomes putrid and acrid, and excites fresh inflammation; and thereby destroys the chance of success, if the case be urgent previously. I think the syringe-pump, adapted to a trocar, would effectually prevent the admission of air."

I have been thus particular in stating these circumstances, in order to show that I had fully weighed and resolved upon the propriety of the operation, long before I had occasion to resort to it. I will only add, before I proceed to the case, that the patient whose state elicited the above remarks, began to improve the same day, and ultimately recovered by the use of other remedies.

On Jan. 12th 1827, I first visited John Skinner's daughter, aged 14 years, who was then labouring under a severe attack of acute rheumatism for the fifth time. The general symptoms induced me to suspect that there was pericarditis likewise, and on examination with the stethoscope, the *rustling* noise was audible about the nipple—there was a dull sound on percussion in a large præcordial space—the heart's action was indistinct, and apparently distant. On the 15th, I gave my diagnosis "*pericarditis with considerable effusion.*"

Under the use of general and local bleedings, blisters, antimonial and mercurial medicines, and active purgatives, much relief was obtained; but she was troubled with a violent cough, occasioned by severe acute inflammation of the bronchia, which greatly aggravated her sufferings. On the 25th both the legs were observed to swell much when she was got out of bed, and the ankles became œdematous. On the 27th, she began to take tartarized antimony in doses of three fourths of a grain every third hour, and which she continued until she had taken eighteen grains, without any vomiting being excited. It produced a decided beneficial effect upon the bronchial in-

flammation. On Feb. 1st, she was "much better—slept several hours in the night, and feels much refreshed—breathing greatly relieved, and the cough is now quite easy compared with what it was. The heart's action is strong, forcible, rapid and extensive, and seems rather mixed with some roughness of sound. Dry bronchial rattles in both lungs anteriorly —vomited this morning after taking tea," (for the first time.)

From that time, for a week or more, there was a manifest improvement in every respect except the œdema of the lower extremities. Feb. 12th, I reported "very ill last night—says 'she seemed as if something was strait on her stomach and tied up her inside, and prevented her getting breath, and lying down in bed:' she feels better when she sits up—the ankles and legs are worse swelled. *Effusion must have increased in the pericardium.*" Next day, (Feb. 13,) the breathing was quite as bad—"dead sound (on percussion) in a very enlarged præcordial space"—there was likewise a distinct *rushing noise* at the bottom of the left side of the præcordial region, which induced me to add to my former diagnosis, "*deposition of lymph on the mitral valve?*" proposed tapping the pericardium if she became worse.

The following day she was so much worse in all respects, that it was evident she could not long survive, unless some relief were given. The face, as well as the extremities had become œdematous—respiration was impossible in any other posture except the erect, and there was much accumulation of mucus in the trachea. The operation having been consented to, I performed it in the following manner, the same afternoon, in the presence of Dr Manson the consulting physician, Mr. Robert Jowett, my brother and pupil, and the patient's friends. Having made a small incision with a lancet through the integuments, between the 5th and sixth cartilages, exactly half way between the sternal extremity of the 6th rib, and the middle of the ensiform cartilage, I thrust a trocar, which had its canula guarded, so that it could not penetrate further than one inch, directly through the thoracic parietes; as I withdrew the trocar, two or three drops of serum escaped, and before I could adapt the pipe of the syringe apparatus to the canula, a little air was sucked through it, during the act of inspiration. On attempting to work the syringe, no fluid was abstracted; imagining, therefore, that I had not punctured the bag, I again introduced the trocar, but with no better success. Certain of the correctness of my diagnosis, I then determined with Dr. Manson's concurrence to make an other attempt higher up, where there could be no possibility of missing the pericardium, and I accordingly repeated the same process between the 4th and 5th cartilages, as near the sternum as there was space enough for the instrument to pass. Here the trocar seemed to push something before it which it did not appear to penetrate, and although, here likewise, I twice introduced the instrument, still no fluid could be sucked out by the syringe.

I left the patient under the impression that I had failed in the operation—and my prognosis was "*death in the course of the night.*" Late in the evening, I found her quite as bad, *but no worse* than before. On the following morning there was an evident amendment—the breathing was less laborious—she coughed more strongly—pulse 126, fullish—the right leg was less swelled, and she had made *two quarts* of urine in the preceding sixteen hours. In the course of that day she made 5 or 6 pints more water—the œdema of the lower extremities decreased rapidly, and the improvement was rapidly progressive in every respect except the cough.

I now perceived, from weighing all these circumstances, that the operation had really been performed, so far as regarded the penetration of the pericardium by the trocar, but in consequence of the canula having been introduced but a little way, it either had never entered the bag, or else had entered so short a distance as to slip out again immediately on the withdrawal of the trocar. Acting on this view, I renewed every exertion, and the improvement from that time, for eight succeeding days, was such as to warrant great expectations of ultimate success. Weakness was the most threatening circumstance, and that was attempted to be obviated by tonics, wine, and mild nutritious food.

On the 20th Feb. the sound on percussion was dull, only in a moderate sized præ-

cordial space, and the heart (examined by the stethoscope) had returned to its natural situation. Feb. 22, she felt better—"not so low nor so faint—rested well in the night—appetite improving—tongue clean—pulse quick—ankles a little swelled." She partook more freely of food. The next day, (Feb. 23,) being the tenth from the performance of the operation, my report ran thus, "has had much pain and soreness under the right ribs since last night, and has, twice, this morning vomited green slimy fluid—bowels rather costive. *Hepatitis?*" She sunk exhausted in the course of the afternoon.

At my earnest request, seconded by that of Dr. Monson, whose kindness on this and other occasions calls for my warmest acknowledgments, the friends permitted an examination of the body to be made, at which Mr. T. R. Tatham also assisted. The exact situations of the punctures were found to be as before described. The *diaphragm* was drawn very high up into the thorax, so that if a pointed instrument had then been introduced perpendicularly at the place of the lowest operation, it would have been punctured. The *pericardium* adhered externally to the anterior part of the left thoracic parietes, through the medium of a layer of firmish recent lymph; and internally it was found every where adherent to the surface of the heart and large vessels, by means of a similar layer of lymph, which varied much in quantity in different places, being in some parts from one-eighth to one-fourth of an inch thick. The adhesion was moderately firm, and the lymph of a reddish colour. As the cavity of the pericardium was destroyed by this state of things, there was of course no fluid remaining in it. The pericardium proved to have been perforated at both the points of operation, and there were two holes at each place, so that every time the trocar was introduced, it had penetrated the bag. On the surface of the right ventricle, opposite the upper or last made puncture, there were two dark spots, which, on examination, proved to be drops of coagulated blood enveloped in the layers of lymph, and which had doubtless come from the wounds of the pericardium, as the surface of the heart was untouched. Both the ventricles and auricles were of the natural size. The muscular structure of the heart was rather flabby, and paler than natural. The edge of the mitral valve, on its auricular surface, was beset with a small ridge of semi-cartilaginous lymph, evidently of recent deposition, although firm and hard.

To this long account I may add, that I have since tried the experiment of puncturing the free portion of the pericardium on the dead body, and I have found, that the point of the trocar readily penetrates the sac; but as soon as the edge of the canula (which of course is always rather larger than the instrument it contains) comes in contact with it, it pushes the pericardium before it, and does not enter it, unless it be introduced to a considerable depth. This explains the supposed failure of the operation in the first instance.

I conclude by observing, that the following propositions appear to me fair practical deductions from the case:—

1st, That the operation of tapping the pericardium may be performed without injuring the heart, or endangering the life of the patient.

2nd, That the operation affords a probable chance of saving life, when all other means have failed.

3rd, That it is proper and justifiable under urgent circumstances.

Believe me, Dear Sir,

Your most obliged servant,

THOMAS JOWETT.

IV.

A Short Outline of the NEW MEDICAL DOCTRINE *of Italy; in a Letter from a Medical Gentleman abroad, dated Jan. 27th*, 1827.

(Communicated by Dr. B. of B——n.)

THE doctrine of contra-stimulants had its origin in the year 1799, during the prevalence of an epidemic fever at Genoa, and at a time when Brown's doctrine of excitability had numerous followers among the medical schools of Italy. Such ill success had those who followed Brownonianism in the treatment of fever, and so opposite were the results of the antiphlogistic plan, that Dr. Rasori, then a celebrated physician of Milan, began to entertain doubts of the most essential dogmas of Brown's doctrine; and though himself a zealous follower of it, and the first by whom the elementary work of

that once celebrated man had been translated into Italian, with notes, yet he, after prudently substituting remedies of an antiphlogistic kind in the disease, obtained such favourable results, that he finally became convinced of the insufficiency of excitabilism.

On considering the circumstances which thus undeceived him, and observing the effects of several articles of the Materia Medica on the system, he professed the following positions, which, although not systematized in any particular work, are considered the rudiments by which the spirit of the new doctrine was disclosed to the world; namely,

1st. That the universal stimulant property of every thing on the system (which was inculcated by the Brownonians) was to be disproved; for there were substances that act with a contrary effect to that of stimulation, and which produce effects on the excitement, similar to what are produced by negative powers, as bleeding, purging, &c.

2nd. That by these substances, which have been called contra-stimulants, the effects of stimuli, or of increased excitement, are to be removed; and that when they are used beyond what is necessary, they are productive of bad effects, which can be removed by having recourse to the stimulant remedies again.

3rd. That, according to these premises, the morbid state, whatever it may be, that arises from the stimulant diathesis, is to be cured by contra-stimulants, as by bleeding, &c.; while on the contrary, in *stimulants* we have a remedy for the contra-*stimulant diathesis.*

4th. that the living fibre bears doses of stimuli according to the prevalence of either diathesis.

5th. That this ability of the fibre is one of the most significant indications of the prevailing diathesis and its degrees, and more to be trusted to than the symptoms, which are fallacious and uncertain, often being common to both diatheses.

Such are the principles on which the New Medical Doctrine of Italy is founded. They never would, perhaps, have been divulged publicly to the world by Rasori, though, as one of the authors above specified says, they formed one of the most remarkable epochs in the history of medicine, had not Professor Tommasini, of Bologna, been their zealous advocate. By this eminent man, these rudiments have been systematized into a body of medical doctrine, and they have thence become rapidly diffused among the most celebrated schools of Italy.

The term *diathesis* is still retained; and, originating as this doctrine does from that of Brown, excitability is also held to exist, as that principle or property of life, on which the inherent powers of all animal organization depend. The doctrine being thus formed on the same basis, and being a reform of Brown's, has caused it to be styled the Daughter of Brownonianism.

Although it has been agitated among the schools for more than twenty years, it does not seem as yet to be wholly perfected. Its principal advocates, however, appear confident in the validity of its general principles, though there seems to exist some difference of opinion as to the classification of disease; and in addition to the two diatheses, which are *stimulant* and *contra-stimulant*, some hold the existence of a *third*, to be termed the *irritative*, and which is to be cured without the use of either stimuli, or contra-stimuli, but simply by the removal of the cause of irritation. As to the importance of this, Tommasini is, however, not satisfied, for he considers the pathology as hinging on the simple division of disease into the stimulant and contra-stimulant diathesis.

This simplicity of classification has also been adopted in the Therapeia, and all remedies have been ranged under two grand classes, and consequently divided into *stimulants* and *contra-stimulants*. The principal ones belonging to the former are, opium, sulphur, æther, alcohol, campor, and ammonia; while among the contra-stimulants are enumerated some noxious vegetables, as cicuta, aconitum napellus, atropa belladonna, linum palustre, lausocerasus, solanum, luctuca sylvestris, digitalis, nux vomica, and other vegetables, highly pernicious, whether indigenous or exotic, and even bitters, iron, (which before were thought to be tonic,) mercury, zinc, antimony, and other minerals, with the acids in general, all of which, opportunely administered, are held to produce directly the same effects which are indirectly produced by bleeding and purgatives, as before observed. As to *poisons*, the advocates of the

new doctrine seem to hold, that there is no such thing in nature, if not used in an improper way.

Each class of disease has thus a class of remedies opposed to and adopted for their removal; and, as I noticed before, the ability of the system in bearing either class of remedies depends on the diathesis which prevails. So far is the basis of contra-stimulus founded on solidism, and the doctrine of Brown, in the upholding of excitability, and the simplicity of its dogmas. In its practical tendencies and general superstructure, it is, however, widely different; for besides that, one of the idols of Brownonianism has been overthrown by the discovery of the contra-stimulant effect of *some* substances, another has shared the same fate, by the advocates of the Italian doctrine totally exploding the notion of *indirect debility*. Under the sway of this last idea, it was maintained by the Brownonians, that three diseases only in one hundred were of the sthenic diathesis. Now that such a dogma is laid aside, the supporters of contra-stimulants have severed the proportions, and hold that ninety-seven out of one hundred diseases come under the stimulant (or sthenic of Brown) diathesis; so that as the application of remedial means is affected, this is an important point of difference, and one which, while it manifests the superior merits of the new, no doubt, happily exposes the demerits of the old doctrine.

Contra-stimulus, though founded on excitability, "which," as one of the above writers said, "is a gratuitory idea," is thus not greatly at variance, in its practical application, with the more modern views of the tone of morbid action, which are entertained in England; for the proportion of the stimulant diseases equals that of the acute or phlogistic complaints, for which we employ antiphlogistic means, and the evacuating mode of treatment.

And although, in such a diathesis, contra-stimulants are liberally administered, positive depletion in many of them does not seem to be superseded, but is employed in the boldest manner. Whether or not the necessity of bleeding and purging is to be anticipated or prevented, in many diseases, by the administration of the contra-stimulant remedies of the materia medica, I am not sufficiently acquainted with the tenor and spirit of the new doctrine to say. In some, however, it appears probable, that the object may be obtained, by dispensing wholly with direct depletion; for Dr. Rasori himself was very successful in this manner of treating pulmonic affections; and, by gradually increasing the dose of the contra-stimulus, he sometimes gave up to seventy-two altogether of the tartar emetic, before the excitement yielded. In Naples, also, venesection is seldom (according to Valentin) employed in such complaints, but the cure is conducted by the use of tartar emetic, nitre, and digitalis.

The basis of this doctrine may be, as no doubt it is, like all that have preceded, subject to much controversy; in its practical indications it has much to support it, in the many corroborating modes of both ancient and modern treatment; while in so ingeniously expressing the *modus operandi* of almost every reputed medicine and specific, by considering them all contra-stimulants, it seems to appropriate every concurring *datum* of the day to its own elevation, and, like Napoleon, it rises the child of circumstance. The honour of its discovery is, of course, justly claimed by the Italians; and though there does not seem to be any elementary work respecting it, that contains the full exposition of it in a system, its doctrinal points and facts occupy a good share of the Italian medical literature, and have no doubt carried their influence beyond the boundaries of the land that claims their birth. Whether or not our own country may have participated in its influence, I will not venture to say, from my long absence; but it is rather remarkable, however, that most of the important medicines of repute in modern practice are contra-stimulants in the language of the doctrine, and have been popular, posterior to the discovery of the Italian doctrine. Digitalis, thus, had its run, and has fallen back into the second class of remedial means in inflammatory complaints. Calomel has been but of late years the leading remedy in abdominal affections; while the tartrite of antimony, though considered always an important medicine, has, particularly of late, been directed to the removal of local and visceral inflammation.

In one sheet of paper, however I shall not attempt to offer any further remarks on this subject, or to detail the observations that some Italian writers have made on it.

V.

To the Editor of the Medico-Chirurgical Review.

Sir,—As you informed me that you had already prepared for the forthcoming Number of your Journal an article on Labarraque's disinfecting liquids, which, under the various denominations of *chlorure—chlorides—chlorates*, and even *chlorurets*, of oxides of calcium and sodium, have been much talked of in France, and repeatedly announced in this country; I think it due to your readers and yourself to acquaint you, before that Number is published, that, by a series of chemical experiments which I have had the honour of reading before the Royal Society, at two of its meetings, within the last fortnight, I have proved, that the ideas entertained by the French author, as well as by all his commentators and translators, of the composition of those liquids, but particularly of that which contains soda, are perfectly erroneous; and that, therefore, the name already given to that liquid, as well as the one proposed to be given to it by a recent writer on the subject, are inapplicable and incorrect. It is surprising that the happy and valuable application of those liquids imagined hy Labarraque, should have been sent by him into the world without one word of scientific illustration or chemical analysis, but merely grounded on pure assumption; and that all his commentators and translators should have contented themselves with repeating and taking for granted what he had promulgated, without assuming the trouble of inquiring, practically, into the soundness of his views, before thay became the heralds of his discovery.

1. Labarraque's liquid of soda does not contain a "chlorure d'oxide de sodium," (Anglicè, chloride of *soda*,) but is a mixture of 73.53 chloride of *sodium*, (marine salt,) and 26.47 chlorate of soda, in every 100 grains, with an excess of chlorine equal to twice the bulk of the water employed.

2. The salts contained in the liquid in question are *not* the disinfecting agents; for, on their being obtained in a dry state, by a gentle evaporation of the liquid, and again re-dissolved in distilled water, it is found that all the remarkable properties of the liquid are lost. Hence, the attempt to sell the pretended basis (or chloride of soda) of Labarraque's liquid, in a dry state, must be founded on ignorance, and must lead to disappointment.

3. The real disinfecting agent in the liquid is the chlorine which it holds in a free state, as laid down in No 1; for, if to the solution of the dry salt in water, mentioned in No. 2, chlorine gas be added, equal to twice the bulk of water, all the disinfecting properties are restored.

4. A similar quantity of chlorine gas, held in solution by distilled water, produces the same disinfecting results, and with equal rapidity, but with great inconvenience to the operator, owing to the escape of the gas, which excites cough, and causes a constriction of the trachea and headache—effects not observed in the case of the disinfecting liquid of soda. From this circumstance, it must be inferred that the presence of the salts serves to chain down, as it were, the excess of chlorine gas.

5. According to the atomic theory, Labarraque's liquid of soda consists of—

1 integrant atom of Chlorate of Soda = 13 5.
5 integrant atoms of Chloride of Sodium = 37 5.

6. The quantity of chlorine required to form these salts is considerable. Twenty fluid ounces of a solution of crystallized carbonate of soda, prepared according to Labarraque's formula, absorb 503.36 cubic inches of chlorine gas, and form 725 grains of the mixed salts; besides which there are 69.43 cubic inches of the same gas ramaining in a free state in the liquid. Of these facts Labarraque seems entirely ignorant.

7. The mode of preparing the liquid in question, proposed by that gentleman, is neither the easiest, nor the most economical.

8. The name which might, with propriety be substituted for the present erroneous one given to the liquid, is that of "disinfecting liquid of soda," and, when writing a Latin formula, that of "liquor chloro-sodaicus Labarraquii."

Having had occasion to use, more extensively, perhaps, than any other person in this country, the two disinfecting liquids of lime and soda, and made numerous experiments on dead bodies, putrid animal matter, putrid effluvia, &c. for the last 15 months, but more particularly during the whole of the last very hot summer, in the presence of a great number of gentlemen, I am enabled to state,

in addition to the preceding information, that I have succeeded in ascertaining the *modus operandi* of chlorine on animal matter, in a state of putrefaction—that new compounds are formed during that action, which I have analyzed—that the presence of putrid effluvia in the air may be detected by chlorine—and that the easiest and most economical process of obtaining the liquid of soda for *disinfecting* purposes, is to saturate, with chlorine gas, a solution of muriate of soda, or common salt. These various points will be shortly developed, at full length, in a second communication to the Royal Society.

I have the honour to be, Sir,
Your very obedient Servant,
A. B. GRANVILLE, M.D. F.R.S.
Physician in ordinary to H.R.H. the Duke of Clarence.

Grafton-st. Berkeley-sq.
15th March, 1827.

VI.

ADVERTISEMENT.*

THE following apology for BRITISH ANATOMY, and incitement to the cultivation of MORBID ANATOMY, would little avail, unless a plan for promoting both, but especially the latter, easy of execution, and admitting of extensive application in all the cities and principal towns of the empire, were submitted through the Profession to the Public, and its adoption invited by the example of its utility.

The plan was formed by DR. FARRE, in the autumn of 1825; was announced, and the Building for it commenced in the spring of 1826, and was more particularly detailed by him in a Course of Illustrations on Organic Diseases of the Heart and Aorta, which he gave to the Profession at the close of 1826. The ACADEMY for carrying it into effect, will be opened for the admission of Members and Students, on the 26th of March, 1827.

Plan of the Academy of Minute Anatomy, and Pharmaceutical Analysis.

Firstly, To cultivate the Anatomy of Structure, as contradistinguished from the Anatomy of Relative Situation, which chiefly occupies the attention of the Schools.

Secondly, to give facility to post mortem examinations, for which a DEMONSTRATOR OF ANATOMY is provided, who will always hold himself at the service of those Medical Gentlemen who wish to encourage, but cannot command the time which is required for this pursuit.

Thirdly, To develope, by researches into Minute *Morbid* Anatomy, not only those organic changes which distinguish structural from functional diseases, but also to trace the peculiarities of the organization of morbid parts, which constitute the generic and specific characters in disease, and especially to observe the series of morbid appearances which occur successively in organs which are united, not only by the more obvious natural sympathies, but also by obscure morbid associations.

Fourthly, To publish, at stated periods, a JOURNAL OF MORBID ANATOMY, OPHTHALMIC MEDICINE AND SURGERY, AND PHARMACEUTICAL ANALYSIS, open to the Profession for the reception of communications, recorded on the responsibility of the contributors.

Fifthly, To publish, separately from the Journal, Essays on the Subjects of the Illustrations in MORBID ANATOMY, occasionally given by DR. FARRE, with plain or coloured Plates, illustrating the successive changes of structure.

Sixthly, To cultivate the Fine Arts of DRAWING and MODELLING, as far as it is desirable that they should be connected with MINUTE PRACTICAL and MORBID ANATOMY. Most Anatomists have felt the disadvantage of being unacquainted with these Arts, and especially those who have more particularly directed their attention to Morbid Anatomy. The difficulty of preserving Morbid Appearances, and of obtaining an Artist to perpetuate them, renders this combination of studies very desirable. His friend, Sir Astley Cooper, distinguished as much by his zeal in this as in his other professional pursuits, and himself, to insure fidelity of representation in the execution of the Plates attached to their Works, retained a Miniature Painter in their joint service for several years, and educated him to the Profession.

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* This Advertisement is intended to be annexed to the Abstract of an Introductory Lecture, which is preparing for publication.

It is indeed highly desirable that all persons, who cultivate Medicine from a love of the science, should study painting, as far as it is subsidiary to the primary pursuit, for an accurate Sketch is a permanent memorandum. He intends that every Student of the Academy, over whom he may have control or influence, shall both Dissect and Sketch.

This Academy is at present an instrument in the hands of an individual; it rests with the Medical Public to make it an INSTITUTION. Regarding it in its humblest form, he will consider his labour repaid, if it produce but one British Anatomist, deserving to rank with the eminent men who have preceded him.

As an instrument of Analysis, it will not interfere with the Schools of Anatomy, and its object being the Anatomy of Structure, which is chiefly applicable to the Physiology of Health and Disease, entire Subjects will not be admitted, although the Anatomy of Relative Position, as far as it is subservient to the primary pursuit, will not altogether be excluded. Demonstrations in a regular Series, on Select Subjects of Minute Anatomy in the Gastric or Absorbent, Cardiac, and Sexual, but more especially of the Cerebral Systems, and in particular of the Eye, Ear, and other Senses, will be given by MR. DALRYMPLE to the Pupils of the Academy, as opportunity may offer.

PHARMACEUTICAL ANALYSIS is blended with the pursuit of Minute Anatomy, with a view of obviating the difficulty often experienced by Medical Students of obtaining Pharmaceutical Knowledge. Many Physicians are defective in this part of their education. It is desirable that Students should have the opportunity, which they cannot now be said to possess, of gaining, by the readiest access to such Institutions, this knowledge, the importance of which to the Practitioner may be estimated, not only by the extent of its application to MEDICO-CHIRURGICAL SCIENCE, but also by its affording the only means of correcting, and finally putting down the adulteration to which drugs are so extensively subjected.

This part of the academy is under the direction of MR. BATTLEY, whose liberal offer of erecting a Laboratory at his sole expense, for the instruction of the Students of the London Ophthalmic Infirmary, in his own Pharmaceutical Processes, made to the General Committee shortly after the removal and permanen establishment of that Institution in 1822 deserves, in this place, particular notic and acknowledgment.

A successive ANALYSIS of the most im portant Articles of the MATERIA MEDIC will be conducted by MR. BATTLEY, i which the greatest pains will be taken t separate their efficient principles, as near ly as possible, in the state in which the exist in the drug, without permitting then to enter into new combinations. The ele mentary parts thus obtained, will the be recombined, and the difference be tween the new compound and the origin al drug illustrated.

Not only will the operations of th PHARMACEUTICAL LABORATORY, but als a MUSEUM OF MATERIA MEDICA, be ope to the Inspection of the Profession, an the study of the Pupils. The Museun will contain the finest Specimens of Ga lenical and Pharmaceutical Preparation contrasted with those of an inferior kinc The different Processes of the variou Pharmacopœias will be investigated, an the best means of obtaining them pointe out.

Every facility will be given to ANATO MICAL and PHARMACEUTICAL ANALYSIS, fo the purpose of Medical Jurisprudence, an of Countervailing the Effects of Poison

Due notice of the Transactions of th Academy will be given in the Journal, a stated periods, and a Diary will always b open to its Visitors and Pupils.

Contributors of perfect Cases, that is of accurate Histories, with careful Pos Mortem Examinations of *all* the Cavitie and External Condition of the Subject with the Morbid Specimens, or of Ne Articles for the Materia Medica; or o Models, Drawings, or Instruction, to in crease and diffuse Medical Science by ai of the Fine Arts, will be accounted *Hon orary Members* of the Academy.

The ACADEMY adjoins the LONDO OPHTHALMIC INFIRMARY, has been erect ed, and is supported by the SAUNDERIA FUND, which is independent of the Fund of the INFIRMARY. Voluntary Contri butors to this Fund, either in or out o the Profession, will be accounted Bene factors, and constitute another class o *Honorary Members.*

Students who contribute to the Fun which supports the Academy, at the mo

derate rate which may be known at the Infirmary, will be considered as its Pupils.

Notice of the Institution of an Annual Saunderian Lecture on Ophthalmic Medicine

It is intended that the FIRST of these LECTURES be given to the Profession, at THE LONDON OPHTHALMIC INFIRMARY, on *Wednesday*, the 28th of *March*, 1827, at *Four o'Clock* in the Afternoon, precisely, by DR. FARRE; and that the MORBID ANATOMY OF THE ORGAN OF RESPIRATION be subsequently given, on *Monday*, the 28th of *May*, and on each succeeding *Monday*, at the same place and hour, until the subject be finished.

The *Card only*, of each Gentleman desirous of attending these LECTURES, is required, which may be previously left at the Lecturer's House, No. 4, *Charter-House Square.*

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review between the 15th of December, 1826, and the 15th of March, 1827.

1. A Physiological Enquiry respecting the Action of Moxa, and its Utility in Inveterate Cases of Sciatica, Lumbago, Paraplegia, Epilepsy, and some other painful, paralytic and spasmodic Diseases of the Nerves and Muscles. By WILLIAM WALLACE, M. R. I. A. &c. &c. Lecturer on Semeilogy and Clinical Surgery, &c. Dublin. 8vo. pp. 148, with a Plate. 1827.

2. Scriptores Ophthalmologici Minores. Volumen Primum. Edidit JUSTUS RADIUS, Philos. Med. et Chir. Doct. in Acad. Lips. Med. P. P. E. &c. &c. Cum Tabula. Lipsiæ, Sumptibus C. H. F. Hartmanni. CIↃIↃCCCXXVI.

3. Pharmacopée Française, ou Code des Medicamens, Nouvelle Traduction du Codex Medicumentarius, sive Pharmacopœa Galica. Par F. S. RATIER, Docteur en Médecine de la Faculté de Paris; augmentée de Notes et Additions, contenant la Formule et le Mode de Préparation des Nouveaux Medicamens dont la pratique s'est enrichie jusqu'a nos jours, un grand nombre d'Analyses Chimiques, et suivie d'un Tableau des Eaux Minérales de France. Par O. HENRY, Fils. 8vo. pp. 556. Paris et Londres, chez M Bailliere. 1827.

We have to thank M. Bailliere for this volume.

4. Observations on the Surgical Pathology of the Larynx and Trachea, chiefly with a view to illustrate the affections of those Organs which may require the Operation of Bronchotomy; including remarks on Croup, Cynanche Laryngea, Foreign Bodies in the Windpipe, Wounds, &c. &c. By WILLIAM HENRY PORTER, A. M. M. R. C. S. in Ireland, &c. 8vo. pp. 283. Dublin, 1826.

Journals received in Exchange.

We have much pleasure in announcing the following amicable interchange of periodical labours, viz.

1. The Edinburgh Medical and Surgical Journal, (Quarterly).
2. The Philadelphia Journal of the Medical and Physical Sciences, (Quarterly).
3. The Revue Medicale et Journal de Clinique, (Monthly).
4. The Edinburgh Journal of Medical Science, No. 5, (Quarterly).
5. The London Medical and Physical Journal, (Monthly).
6. The London Medical Repository, (Monthly).
7. The North American Medical and Surgical Journal, (Quarterly).
8. The American Medical Review and Journal, (Quarterly).
9. The Archives Generales de Medicine, (Monthly).

10. The Journal Complementaire des Sciences Medicales, (Monthly.)

11. The Journal Generale de Medecine, (Monthly.)

12. Magendie's Journal de Physiologie, (Quarterly.)

13. The American Medical Recorder, (Quarterly.)

14. The New York Medical and Physical Journal, (Quarterly.)

15 The Journal Universel des Sciences Medicales, (Monthly.)

16. The Bibliothéque Medicale, (Monthly.)

17. The Bulletin des Sciences Medicales, (Monthly.)

18 The Magazine of Medical Literature and the Healing Art. By Drs. Gerson and Julius. (Two monthly.)

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23. Dissertatio Medica Inauguralis de Tetano. Per Joannem Wayte, M. D. Lynn-Regis, 1826.

☞ *Dr. Wayte has made elaborate researches for the various opinions of authors on Tetanus—has weighed them carefully—and judged of them judiciously. In an Appendix, Dr. W. has collected, in a tabular view, a large body of cases of Tetanus, from various publications, showing the history, treatment, and termination of each case.*

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24. An Essay on the Use of Chlorurets of Oxide of Sodium and of Lime, as powerful Disinfecting Agents, and of the Chloruret of Oxide of Sodium more especially, as a Remedy of considerable Efficacy in the Treatment of Hospital Gangrene, Phagedenic, Syphilitic, and ill-conditioned Ulcers; Mortification; and various other Diseases. Dedicated by Permission to the Right Honourable Robert Peel. By Thomas Alcock, Member of the Royal College of Surgeons in London; Member of the Medical and Chirurgical Society, &c. &c. 8vo. pp. 152, and one plate. Burgess and Hill, 1827.

☞ *See the present number of our Journal.*

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25. Rheumatism, and some Diseases of the Heart and other Internal Organs: considered in the Gulstonian Lectures, read at the Royal College of Physicians, May, 1826. By Francis Hawkins, M.D. Fellow of St John's College, Oxford, and of the Royal College of Physicians, &c. 8vo. pp. 144. London, 1826.

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26 An Essay on Medical Education. By William Barrett Marshall, an Assistant Surgeon in the Royal Navy. 12mo. pp. 114. London, 1827.

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27. The Medical Student, No. 1. Burgess and Hill, London, January, 1827.

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28 Illustrations of the Arteries connected with Aneurism and Surgical Operations. These plates are intended to explain the relative position of the Arteries, in respect to the surrounding parts, and the Organs to be met with in such operations, both externally and internally to their sheaths. No. 1, containing three plates of the Anatomy of the Neck, Second Edition. No 3, containing Plate V. Supplementary to No. 2, of the Axilla; Plate VI. Dissections 1, 2, 3, 4, and Plate VII. Dissections 1, 2. Comprising the Anatomy of the superior extremity, bend of the forearm and hand. By G. D. Dermott, M.R C S. and Lecturer on Anatomy. London, 1827. Price 15s. each part.

☞ *These Plates are highly creditable to Mr. Dermott. The surgical anatomy of the neck and upper extremity, and the relative position of arteries, veins, and nerves to each other, are represented with clearness and accuracy. We think that the work will prove highly useful to the young surgeon, and to him we freely recommend it.*

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29. Outlines of Human Physiology. By Herbert Mayo, Surgeon and Lecturer on Anatomy. 8vo. pp. 406. London, 1827. Price 14s.

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30. An Introductory Lecture to a Course of Surgery, delivered at the Richmond School of Medicine, Dublin, on the 8th day of January, 1827. By R. Carmichael, Esq. M.R.I.A. &c. Printed at the request of the Pupils. 8vo. stitched, pp. 51. London, Longman's, 1827.

31 Practical Directions for Preserving the Teeth, with an Account of the most Mordern and Improved Methods of supplying their loss; and a Notice of an improved Artificial Palate, invented by the Author. Second Edition. By ANDREW CLARK, Dentist. 8vo. pp. 96, with six plates. London, 1826.

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32. Principles of Medical Science and Practice, Part II Vol II. Pathology. By HARDWICKE SHUTE, M.D. &c. &c. 8vo. pp. 504. London, Longman's; and Gloucester, 1826. ☞ *In our next.*

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33. Myology, illustrated by Plates on a peculiar construction. In Four Parts. Part the Fourth. Muscles on the Face and Eye, anterior and posterior Parts of the Neck, with the Muscles of the Perineum, completing the whole of the Muscles of the Human Body. By E. W. TUSON, Lecturer on Anatomy and Physiology, Member of the Royal College of Surgeons in London, and late House Surgeon to the Middlesex Hospital. London, Callow and Wilson, 1826. Price 12s. plain, 18s. coloured, each part; or the four parts in boards, 2l. 8s. plain, or 3l. 12s. coloured.

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34. Traité Medico-Chirurgicale de l'Inflammation. Par S. THOMSON, Professeur de Chirurgie a Edinburgh, &c. Traduit de l'Anglais, avec des Notes, par F. G. Boisseau et A. S. L. Jourdan. 8vo pp. 678. Paris, 1827. Imported and sold by Balliere, Medical Bookseller, Bedford-street, Bedford-square, London.

☞ *As Dr. Thomson's work is not now to be procured, and as this translation is enriched by a series of very valuable notes, we recommend it in the strongest manner to our professional brethren.*

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35. A Lecture upon the ZOPURON, as lately delivered at the Sunderland Infirmary. By WILLIAM REID CLANNY, M.D. F.R.S.E. Physician to the Sunderland Infirmary, &c. Quarto, pp. 16. 1826.

☞ *The Zopuron (Reviver) is an ingenious apparatus, invented by Dr. Clanny, for more effectually producing artificial respiration, in suspended animation, than the bellows of the Humane Society. The lecture contains many judicious and ingenious observations on the subject of suspended animation, and the means of preventing the final extinction of the vital spark.*

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36. Medical Botany; or Illustrations and Descriptions of the Medicinal Plants of the London, Edinburgh, and Dublin Pharmacopœias, with those lately introduced into Medical Practice; comprising their generic and specific characters, &c. Including also a popular and scientific description of Poisonous Plants, particularly those that are indigenous to Great Britain and Ireland; with Figures coloured from Nature; the whole forming a complete system of Vegetable Toxicology and Materia Medica. By JOHN STEPHENSON, M.D. and JAMES MORSS CHURCHILL, Esq. Surgeon. Nos. I. II. III. for January, February, March; to be continued monthly, price 3s. 6d. London, 1827. ☞ *In our next.*

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37. Memoires sur le traitement de la Cataracte. Par LOUIS FRANCOIS GONDRET, M.D. Deuxieme Edition, Paris, 1826.

☞ *We return Dr. Gondret our thanks for this little work, and beg to refer him to our tenth Number of this series for a very full analysis of the first edition.*

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38. Practical Observations on the Application of Lunar Caustic to Strictures of the Urethra; illustrated by Cases, proving the permanency of the Cure by that Treatment. To which are added, some Remarks on its use in Strictures in the Œsophagus. By M. W. ANDREWS, Member of the Royal College of Surgeons, London. Second Edition 8vo. pp. 249, two plates. London, 1827. Price 9s.

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39. Observations on the Expediency of Instituting a Friendly Association of the Medical Profession throughout Scotland, for insuring a provision during sickness and old age, &c. &c. By EDWARD D. ALLISON, Surgeon.

☞ *We are happy to see this very excellent institution carried into complete operation, for which Mr. Allison is entitled to great praise. We wish that a similar institution were formed in England; it would prevent many of those scenes of penury and distress among our brethren*

and their desolate families, which we are daily compelled to witness. Mr. A.'s pamphlet contains all necessary information on this important subject.

40. An Alphabetical Catalogue of Drugs; with a specification of their Doses to Children and Adults—the Diseases for the cure or palliation of which they are administered, &c. To which are added, a Collection of the most approved Medical Prescriptions, &c. &c. 12th Edition. By Reece and Co. London, 1827.

☞ *In this edition there is a fair account of the new chemical preparations; and the "Alphabetical List of Diseases, with reference to Remedies," is better adapted to the exigencies of the general reader (for whom it is of course designed), than most works of a popular character.*

41. Conversations on Anatomy, Physiology, and Surgery. By ARCHIBALD ROBERTSON, M.D Author of the Colloquia de Morbis, &c. &c. Highley. 18mo.

42. New York Medical and Physical Journal, Nos 19 and 20, for October, 1826, and January, 1827. *In exchange.*

43. New York Monthly Chronicle, Nos. I. to XII. inclusive. *In exchange.*

44. A Description of the Mode of using the Forceps invented by Mr. Fay, for the extraction and excision of Teeth. 8vo. pp. 16, with Plates. 1827.

45 Nugæ Canoræ; or Epitaphean Mementos (in Stone-Cutter's Verse) of the Medici Family of Modern Times. By UNUS QUORUM. 8vo. pp. 70. Callow and Wilson. 1827.

☞ *A good humorous medley of real traits of character, and satirical glances at the foibles of the* MEDICI FAMILY. *It is a twin-brother, not by the same father (if such an Hibernicism be allowed) of the* GOLD-HEADED CANE. *It is not improbable that we shall amuse a dull hour, in our next Number, with these curious productions of the medical press.*

46. Elements of Chemistry, including the recent Discoveries and Doctrines of the Science By EDWARD TURNER, M. D. F. R. S. E. Fellow of the Royal College of Physicians, and Lecturer on Chemistry, Edinburgh, &c. &c. 8vo. pp. 723, plates 11. Edinburgh, 1827.

☞ *This is really an excellent manual, embracing all the modern discoveries, and concentrating in a small space a vast body of chemical science, and a clear view of chemical operations.*

PRIZE HOSPITAL REPORTS.

In answer to several inquiries, nominal and anonymous, we beg to say, that the Candidates for the Prize are *not* confined to *Pupils* of Hospitals exclusively. The Reports must be authenticated by the name of the Reporter. This is the only absolute condition. For reasons which will appear in our next, two Prizes, *in succession*, cannot be adjudged to the same Hospital. The Reports must reach the Editor by the 1st of the month preceding publication; viz. by the 1st of June—1st of September—1st of December, and 1st of March.

Two Prizes will be awarded for the ensuing Quarter—one of which it is to be hoped, will be for a provincial Hospital Report. Each Report will be allotted a space varying from 32 to 48 *Columns*, such as the present Report is printed in.

INTELLIGENCE, CORRESPONDENCE, &c.

Chlorides of Soda and of Lime.

Since this disinfecting and medicinal agent is likely to come into considerable demand, it will be gratifying to learn that it is to be procured at a very cheap rate—no inconsiderable advantage! Mr. Fincham, an ingenious and scientific wholesale manufacturing chemist of Nottingham, has now furnished his London agents (especially Mr. Philp, of Regent Street) with abundance of these articles, which may now be procured at a very reasonable price indeed. We have no doubt that medical practitioners will forthwith supply themselves with these chlorides, and make trials of them for the various purposes which are amply detailed in the present number of this Journal.

Medico-Chirurgical Society.

On the 1st March, the following officers were elected for the ensuing year, viz. Mr. Travers, President—Dr. Merriman, Mr. Stanly, Dr. Bright, and Mr. Rose, Vice-Presidents—Dr. Roget and Mr. Earle, Treasurers—Dr. Seymour, and Mr. Eusebius Lloyd, Secretaries—Dr. J Johnson, and Mr. Arnott, Librarians. The other members of the Council are, Dr. Baker, Mr. Broughton, Dr. H. Davies. Mr. Money, Mr Powell, Mr. Alcock, Dr. Tweedie, Mr. R. Welbank, Dr. Roberts, Mr. Ashwell.

The new President and Secretaries took their seats on the 13th March, when Mr. Travers delivered a very appropriate speech from the chair. He animadverted in delicate, but very forcible language, on the supineness of the more influential members of the society, during the last two years, by which supineness and negligence of attendance at the meetings, the character of the society was, in a degree, compromised and lowered in public estimation. The president candidly acknowledged that he himself was among the delinquents, (if such a term is admissible,) and did not impute any blame to others, in which he did not fully participate himself.

Indeed we cannot allow this opportunity to pass, without reiterating and enforcing the observation of the president, that, the grand (we would say the *sole*) cause of the decline of the Society is *apathy* among its members—and that it requires nothing more than the *presence* of the members in its meetings, to restore, at once, the society to all its pristine splendour and respectability. We conceive it to be a species of ingratitude in the higher orders of the profession, whose names are enrolled on its lists, to desert the society in the days of their own prosperity. They owe something to public opinion, to the junior members, and to the promotion of that harmony and kindly feeling among medical men, which associations of this kind are so well calculated to effect. The appeal which is now made to the members of the Medico-Chirurgical Society, will, we have no doubt, rouse them from their apathy, and render the meetings of this excellent institution, interesting to themselves, and its transactions advantageous to the profession at large. The first meeting, under the new president, augurs well. An important paper was read from Mr. Welbank, and much valuable information was elicited from Mr. Lawrence, Mr. Earle, Dr. A. T. Thomson, &c.

(Circular.) "In consequence of a correspondence which has taken place between the President of the College of Physicians, and the President of the College of Surgeons, the Board of Curators have adopted the following resolution."—"That the Licentiates of the College of Physicians shall hereafter be admitted to the Museum of the College of Surgeons, upon all days of public exhibition, without further ceremony than that of inscribing their names in the visitors' books."

Obituary—Mr. Bampfield.

We have deeply to regret the recent and premature death of this able and

amiable surgeon, well known to his professional brethren by several works of sterling merit—especially his Treatise on Scorbutic Dysentery, and that on Diseases of the Spine. Mr. Bampfield had served many years as surgeon in the Royal Navy, and, at the conclusion of the late war, settled in Bedford-street, Covent-garden, as a general practitioner. There he may be said to have originated a medical practice, and to have brought it to a very considerable extent by his talents, his integrity, and his humane attention to the sick. He was universally beloved and respected by all who knew him, both in and out of the profession.

For many years past he laboured under some obscure affection of the chest, attended with cough and some dyspnœa, especially when ascending stairs, or walking fast. He did not, however, attach importance to his own complaint, and would never relax, on that account, from his professional labours. It was only about three months before his death, when labouring under some slight bronchial inflammation, which aggravated his original malady, that he sent for the Editor of this Journal, who, on examining the chest, immediately discovered the fatal nature of the disease. The heart was enlarged to a very considerable extent, and, that peculiar and dangerous whizzing, or purring noise was heard, during each ventricular contraction, which has been mentioned by Laennec and others, and of which we gave a remarkable instance at page 213 of our last Number. As we have always found this phenomenon indicative of fatal organic disease, the melancholy event was now anticipated by the reporter, though concealed from the patient. At a later period, Dr. Elliotson joined the Editor of this Journal, in an auscultic examination of the chest, and Dr. E. came to the same conclusion as Dr. Johnson did. Dropsical effusions took place, and were relieved by diuretics, &c. but the fatal malady made progress, and this excellent member of our profession died suddenly at Reading, whither he had gone for a few weeks, in hopes that change of air might mitigate his sufferings. Mr. B. has been succeeded in his practice by Mr. Brookes, late of Reading, brother to Mr. Joshua Brookes the anatomist.

Ouvrages Nouveaux qui se trouvent chez J. B. Baillière, 3, Bedford Street, Bedford Square, London.

Dutrochet. L'Agent immediat du Mouvement Vital Dévoilé dans sa Nature, et dans son Mode d'Action chez les Végétaux et chez les Animaux. Paris, 1827, en 8vo. Prix 4s.

Calmeil. De la Paralysie considerée chez les Aliénés; Recherches faites dans le service de feu *M. Royer Collard* et de *M. Esquirol.* Paris, 1826, en 8vo. Prix 6s. 6d.

Hurtrel d'Arboval. Dictionnaire de Medecine et de Chirurgie Vétérinaires, tom, 1, en 8vo. Paris, 1826. Prix 16s. (Le Tom. 3 paraitra dans deux mois.)

Memoires de la Societé Medical d' Emulation de Paris. Tom. 9, 8vo. Paris, 1826. Prix 8s. (Cet ouvrage est aussi publié sur le titre de tom. 1, pour les personnes qui n'ont pas le commencement de la collection.)

Ratier et O. Henry. Pharmacopée Francaise, ou Code de Medicamens, nouvelle traduction du Codex Medicamentarius sive Pharmacopœa Gallica. Paris, 1827, en 8vo. prix 8s.

Rayer. Traité Theorique et Pratique des Maladies de la Peau, fondé sur de nouvelles Recherches d'Anatomie et de Physiologie Pathologique. Tom. 1, en 8vo. Et atlas de 10 planches gravés et colorées, offrant plus de 60 variétés de maladies de la peau. Paris, 1827, prix 18s. (Le tom. 2 et dernier paraitra en Avril.)

Portal. Observations sur la Nature et le Traitement de l'Epilepsie. En 8vo. prix 8s. Paris, 1827.

Londe. Nouveaux Elemens d'Hygiene redigés suivant les principes de la nouvelle Doctrine Medicale. Paris, 1827. 1 tom. en 8vo. prix 12s.

Tiedmann. Tabula Arteriarum Corporis Humani. *Carlsruhe,* 1822 et 24. 1 vol. en 4to, de Text (Latinæ et Germinæ,) et 76 Planches, coloriées grand en fol atlantique relié. Prix 12l. 10s.

J. Thomson. Traité Medico-Chirurgical de l'Inflammation. Traduit de l'Anglais avec des notes par F. G. Boisseau et A. T. L. Jourdan, un fort vol. en 8vo. Prix 9s. Paris.

Roche et Sanson. Nouveaux Elemens de Pathologie Medico-Chirurgical, ou precis Theorique et Pratique de Medecine de Chirurgie, tom. 1 et 2, 2d vol. en 8vo.

Prix 17s. (Le tom. 3 et dernier, paraitra dans un mois.)

Voisin des Causes Morales et Physiques des Maladies Mentales, et quelques autres Affections Nerveuses, tellesque l'Hysterie, la Nymphomanie, et le Satyriasis. Paris, 1826. 1 vol. en 8vo. prix 7s.

Gall. Sur les Fonctions du Cerveau et sur celles de chacune des ces Parties, &c. Paris, 1827. 6 vols. en 8vo. prix 2l. 2s.

The Editor has received a long letter from Dr. Barnes, of Carlisle, complaining of the review of his paper on "Vicarious Menstruation," published in the 4th No. of the Edinburgh Journal of Medical Science, and analyzed in the 11th No. of this Series, page 248. Dr. B. calls on the Editor, in warm language, to review the whole transaction, and compare the original with the critique, or rather analysis, in order to do justice between the reviewer and reviewed. Although the Editor has but little time for such revisals, he did compare the papers, and while he acknowledges that the reviewer of Dr. Barnes's paper has misunderstood him on some points, of no great importance, yet he must also take the liberty of saying, that *he also* had very great difficulty in connecting the statements, and making out the precise meaning of Dr. Barnes. The Editor cannot help observing, that Dr. Barnes appears to be a great deal too sensible to the *remarks* of the reviewer; (for they really do not deserve the name of *criticisms;*) and that there does not appear to be any thing in these remarks which throws the slightest doubt upon the accuracy of Dr. Barnes's statements, the correctness of his judgment, or the respectability of his professional attainments. The reviewer of Dr. Barnes's paper resides nearly 500 miles from Carlisle, and therefore could have no possible object or wish to misrepresent him. He has misunderstood him on some points; but his comments are so mild, that they really require no other observation than what is here stated. With this explanation the Editor hopes Dr. Barnes will be satisfied.

Mr Lizars, in answer to some queries contained in our last Number, begs to inform the subscribers to his Anatomical Work, that he shall lose no time in writing the remainder of the Physiological and Pathological Observations.

Cooper's Surgical Dictionary.

A correspondent has suggested to us, that this valuable work might be converted into a System, as well as a Dictionary, by means of a table of its contents, arranged somewhat in the same way that Dr. Ure has done in his Dictionary of Chemistry. For instance, inflammation and its consequences might be placed under the first head of this tabular view; tumours, &c. in the second, and so on. Were this plan adopted in the new editions, we cannot help thinking that it would be of great advantage, both to the student and more advanced branches of the profession.

We are sorry that, owing to a misapprehension of the printer, a notice re-appeared in our last Number, purporting that all the back Nos. of the Analytical Series, imported from America, were in readiness for delivery The Journals have been twice procured from America, but there are none now remaining. Mr. Millar, of Bridge Street, Black Friars, has been commissioned to procure a fresh supply, and as soon as they arrive, notice will be given to our subscribers.

The cases of poisoning by Belladonna, received from our friend in the North, will appear in our next.

The Medical Botany will be regularly noticed in future, as the numbers come out. In the mean time, we strongly recommend the work to the medical profession.

Sound Chirurgical Knowledge.

We deem it necessary to notice a most unique article in the Lancet of March 17th, on a critique or two which appeared in our last number. If our readers will have the goodness to turn to page 195, of that number, they will find a pretty full exposé of a case which appeared in the Lancet, as a varicose aneurism of the *radial* artery. We stated that we were quite sure that it was no varicose aneurism at all, and we *supposed*, from the manner in which the case was drawn up, that the *brachial*, and not the *radial* artery was wounded. After nearly three months' preparation, a reply has been sent forth,

and from the *talent* which it exhibits, we should have concluded it was the production of the reporter himself, did not the *characteristic* elegance of style, at once stamp its author.

"Let us examine (says the Lancet) what he has produced. First there is a note of interrogation affixed to the words '*radial* artery;' and he goes on to say, '*we* suppose the *brachial* was meant;' 'no high bifurcation mentioned'; thereby intimating, that our reporter did not know whether the brachial or radial artery was wounded. The '*Scribe*' should recollect, that a *dissection* of the limb had been made previous to the writing of the report; that the *radial artery* was *found* to be *wounded*, and, *par consequence*, it must be given off 'higher up than usual,' which is no uncommon thing. Was it necessary to tell *our* readers, that if the *radial* artery were wounded *at the bend of the fore-arm*, it must have had '*a high division?*' To have done so, would have been an outrage on their judgment. But he does not say that the *radial* was *not* the artery *wounded*. Oh! no. He knows that it *was*."—*Lancet*, 770.

It would have been an insult, it seems, for this writer to have told *his* readers "that if the *radial* artery were wounded *at the bend of the fore-arm*, it must have *had a high division*." Oh yes; but this same person thinks it no insult to tell his readers what is utterly untrue. There WAS NO HIGH DIVISION—the RADIAL ARTERY WAS NOT WOUNDED. The dissection was made by Mr. Alcock—the *preparation* is at Mr. Guthrie's theatre, in Warwick-street; shown at his lectures, seen by his pupils. The wound *is* in the BRACHIAL artery. This is fact—this is proof. But what of that? Facts and proofs are to the Lancet—as snow to the fire.

Take now a specimen of sound chirurgical knowledge.

"If" says he "he did, (know any thing of aneurism,) he would not have ranked 'circumscribed aneurism,' and 'aneurismal varix,' and 'varicose aneurism,' as *three distinct* consequences of wounding an artery in phlebotomy. *Aneurismal varix*, and *varicose aneurism* being *synonymous* terms for a pulsating tumour formed by the flowing of arterial blood into a suprajacent vein, in consequence of a communication established between them, by the vein having been transfixed, and the artery punctured, as occasionally happens in venesection. Such aneurism may be either *circumscribed*, or *diffused*, (in consequence of the escape of some arterial blood into the surrounding cellular tissue,) but it is no less an aneurismal varix, or varicose aneurism, on that account."—*Lancet*, 771.

It is not? Why the very class-books of the schools confute this. Take, for instance, Harrison on the Arteries, one of the latest and the best.

"Thus from accident," says he, "in venesection, four forms of aneurism may arise; first, circumscribed aneurism, filling up the hollow at the bend of the elbow; secondly, diffused aneurism, in which the disease extends from the elbow along the line of the artery towards the axilla; in both these forms of the disease, the operation of tying the brachial artery may be necessary; thirdly, *aneurismal varix;* and fourthly, varicose aneurism: in neither of which will an operation be generally required, except under the circumstances above-mentioned," namely, "in some cases of varicose aneurism, in which the intermediate sac has increased in size, and compressing the vein has extended itself as a common aneurismal tumour so as to require similar treatment." We might refer to authors innumerable, to the same effect, if we chose, but we have neither space, nor is it worth the trouble, for the merest tyro knows the fact. So much then for the veracity and surgical acumen of the *matter;* as for the beauties and elegancies of the *manner*, we have not courage to grace our pages with specimens of *them*.

The base insinuation, that we have ever thrown out imputations against any class of our professional brethren, we repel with scorn. The *object* of such insinuation is so manifest, that it will be seen at a glance by the most superficial observer. *Our object* is not to sow discord among the members of the medical profession, and by setting them in arms against each other, to degrade them from the rank of a liberal and enlightened faculty No! Our wish is to promote harmony—and our labours have ever been directed to this end, as well as to the diffusion of useful knowledge, among all ranks of the profession. For the truth of these assertions, we appeal to all those who have perused the pages of this Journal from its commencement.

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Palmam qui meruit ferat.

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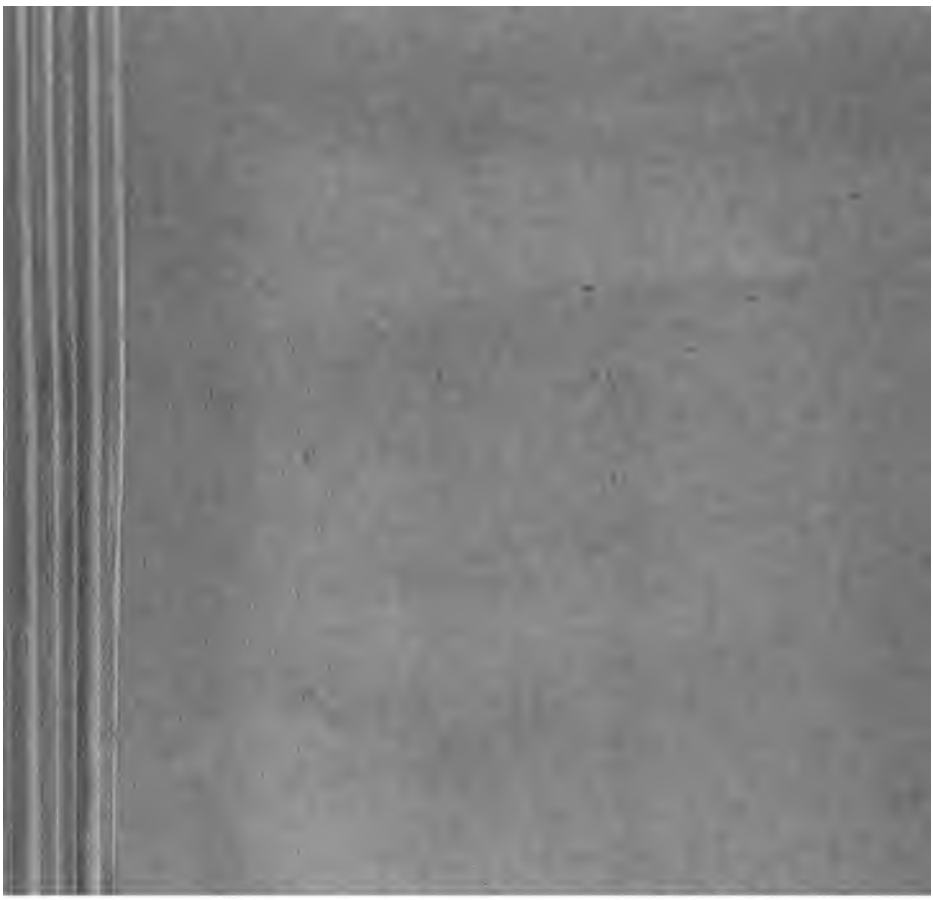

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